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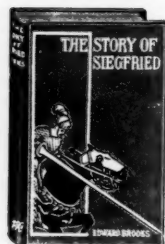
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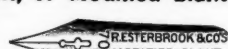
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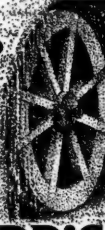


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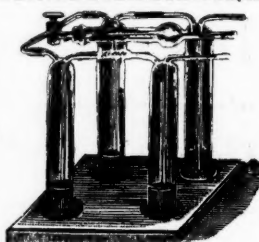
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The Organization of Trade Schools.

By Supt. Thomas M. Balliet, Springfield, Mass.

Over 30,000 students are enrolled to-day in the evening classes of the Y. M. C. A., and several hundred thousand in correspondence schools, receiving instruction in technical subjects. These facts, together with others like them which might be cited, emphasize strongly the great need of trade schools and of technical schools of a lower grade than engineering schools. We must not be prejudiced against trade schools as a part of the public school system because they emphasize the utilitarian element in education. Our forefathers, who founded the public school system, were altogether utilitarian. Their motive for establishing high schools was to fit young men for colleges which would prepare them for the ministry. They established elementary schools for the children of the masses to teach them "to read, write, and cast accounts." Their aim thruout was utilitarian. If, in their day, there had existed the need for trade schools which exists at the present time, their first thought would have been to provide for such schools and to give children an education which would prepare them to earn their living after leaving school. Indeed, we must revise our ideas of educational values. The educational value of any subject must be determined, not only by what it does for the pupil while in school, but also by what it contributes to his future development all his life. A study may have a high educational value while it is being pursued, but if it is completely dropped when school days are over and does not connect very directly with anything in practical life, it may have less educational value than the learning of a trade which is pursued thru life.

The school ought to begin a development which is afterward continued by the environments in order that the process of education may be a continuous one. To teach a man a trade by which he may earn all his life a dollar or two dollars a day more than he otherwise might have earned is to put his whole life and that of his family on a higher plane than it would otherwise have been. It means more of the amenities of life for his family; it means pictures and music and education as well as social opportunity and social position.

How may trade schools be organized under the industrial conditions existing in this country? First: our manual training high schools should be converted into technical high schools. We have enough technical schools of college rank for present needs, whose function is to train engineers. There is great need, however, of technical schools of high school grade, whose function should be to train foremen and superintendents of shops, and, in short, that whole group of men who come between the engineer and the mechanic, and whose duty it is to direct the work of the latter under the general superintendence of the former. Such men must virtually know the trade of the men whom they are to supervise, and they cannot receive the necessary shop training in a higher technical school to make them sufficiently expert. Furthermore, these technical high schools should have one four years' course in manual training, solely for educational purposes. Possibly students may also be allowed to specialize in certain lines of shop work to enable them to learn the principles of the machinist's trade and become experts in one of its branches. This latter is a

question of which no one can, as yet, speak dogmatically, and it may be ultimately found inadvisable to teach even the trade requiring the highest skill in a manual training high school.

Secondly: There ought to be organized in the shops of every well-equipped manual training high school evening classes in trades, consisting largely of men already engaged at their trade, either as apprentices or as journeymen. The function of such evening schools should be, in the main, to make more efficient men, who already know their trade in part, and to broaden their mechanical training. Such schools would meet with the approval of manufacturers, because they would train their men to do a higher quality of work; they would be approved by the workmen because they would enable them to get promotions and increased wages; they would, furthermore, be approved by the labor unions, because they would accomplish all this without adding materially to the supply of labor in the labor market.

Third: Our evening drafting classes should be re-organized. At present there is usually only one such school in a city and the class is taught by a professional teacher of drafting, or by a draftsman employed in the daytime in some manufacturing establishment. The result is that, while he is able to teach the elements of mechanical drawing very successfully, he is not competent to teach its applications to the various trades. What is needed is an organization of the evening drawing classes in such a way that (1) all students may take a common course in the elements of mechanical drawing to lay the foundation for specialization; (2) that for specialized instruction men may be grouped in classes, according to their trades; (3) that they may be given a teacher of drafting who knows the trade and can show its application to the details of the trade. This is the plan on which the so-called trade classes and trade schools of Germany are organized. There is very little in these schools of shop work that requires machinery. There is shop work in the schools for sadlers, tailors, etc., but, only in rare cases, in those for mechanics. Men work at their trade in the daytime and receive technical instruction in drawing and other subjects in the evening classes. We could double the attendance in our evening drafting schools, I feel sure, by organizing them on this plan.

Fourth: We ought to organize evening classes in mathematics for men engaged in the mechanical trades, grouping them in classes according to their trades, and give each class a teacher who not only knows mathematics, but also knows the trade of the men whom he is instructing, and can apply his instruction to that trade. Such classes can easily be organized in any of our evening high schools, and it is entirely feasible to organize them in connection with evening trade schools conducted in the shops of manual training high schools.

Fifth: We ought to organize, in like manner, evening classes in applied physics, grouping the men again in such a way that those of the same trade, or closely related trades, are put together in classes by themselves and are taught by a teacher who can teach, not only physics, but also its applications to the trade.

Sixth: We ought to organize similar classes in chem-

istry, in which, besides teaching the rudiments of chemistry as a basis for specialized instruction, its various applications to the manufacturing industries should be taught.

Seventh: We ought to organize classes in electricity where students may receive not only theoretical instruction, but also have an opportunity to do laboratory work and fit themselves for practical work as electricians.

Eighth: There is great need of a trade school for boys fourteen years old and over, who are not prepared to enter a high school, and are obliged to learn a trade or to leave school and engage in some kind of gainful occupation. Statistics show that a large majority of men engaged in the wood working and iron working trades have never attended a high school. Quite a fair per cent. of them have never completed a grammar school course. These statistics show that there is need of a trade school of lower rank than a high school. Such a school ought to take boys at the end of the sixth or seventh year of the elementary school course, after they have reached the age of fourteen, and keep them three or four years, as may be necessary, requiring them to do as much academic work, both of grammar and of high school grade, as they can carry. No trade school for boys of this age should ever be established which does not require academic work. All the instruction to mature men who are already engaged at their trades should be highly specialized, for in this way alone can it be made to appeal strongly to their interest. Such men come to an evening school for the purpose of gaining the ability to do something which will have a commercial value, and not, as a rule, for instruction, which will only broaden, in a general way, their education. They may be able to run one machine or two machines in the shop in which they are engaged and come to the trade school to learn how to run another; but they come to learn to run this other machine with sufficient skill to do work with it which shall have a commercial value. In order to secure attendance and interest at an evening school of any kind, where attendance is not compulsory, it is necessary to teach the student that particular thing which brought him to the school.

While in the case of men already engaged at their trade a high degree of specialization must be allowed, the reverse is true of a trade school in which young boys are to learn a trade. Such boys ought to be given, in the first place, a broad course in manual training, making them familiar with mechanical principles and with mechanical processes of various kinds; in short, with the underlying principles and processes of a number of specific trades. They should be required to study mechanics, physics, and mathematics, and their applications to the mechanical trades, with all the thoroughness of which they are capable. In other words, before they are allowed to specialize minutely they should be given the broadest training possible in their case. The one thing which the American mechanic needs, and fortunately possesses, is versatility. With the rapid changes in trades and the rapid displacement of one piece of machinery and one process of manufacturing by another, the ability to adapt himself readily to these changes is absolutely necessary to the mechanic.

Ninth: Schools ought to be established for the teaching of cooking, sewing, millinery, industrial drawing, modeling, and wood carving. Some of these might be conducted as day schools for boys and girls, and others as evening schools for adults.

November Meetings.

Nov. 5-7.—Northern Illinois Teachers' Association at Joliet. Supt. H. H. Kingsley, Normal, president; S. F. Parson, De Kalb, secretary.

Nov. 6.—Norfolk County, Mass., Teachers' Association, at Boston.

Nov. 27-28.—Massachusetts Teachers' Association, at Boston. Supt. Louis P. Nash, Holyoke, president.

Feb. 23-25, 1904.—Department of Superintendence of the N. E. A., at Atlanta, Ga. Supt. Henry P. Emerson, Buffalo, N. Y., president; J. H. Hemon, Little Rock, Ark., secretary.

Instruction in the Manual Arts.

By JAMES P. HANEY, Director of Manual Training, New York City.

During the last decade a remarkable change in the philosophy and practice of the elementary school—a change which is making for the more direct relation of school life to real life and for the giving of greater opportunity for individuality on the part of the teacher, and greater chance for development and activity on the part of the child has taken place.

When drawing was first introduced in the elementary schools it was a specialty, a cross between industrial and esthetic training. It was offered as a disciplinary subject—a capital trainer of the hand and eye, a subject which sought definite ends in skill, however indifferent to the means employed to secure such ends. Constructive work appeared later in the curriculum than did the drawing, but remained quite as special. From the first it was making for making's sake; practice, that dexterity might be gained; drill, that the elements of craft might be absorbed. The experiment, both in drawing and design, was pushed along these formal lines, but it did not succeed. No teacher, who saw these subjects develop, would have agreed that they were essential to the education of the child. They were fenced off in the curriculum as "specialties."

The clear light of scientific inquiry has served to change this attitude by changing our point of view toward the child. We failed in the first instance largely because we insisted upon making the child follow a course of study adapted only to the teaching of a man. We began to succeed the moment we really came to a knowledge of our mistake—the moment it was realized that the child is not a man in miniature, but a very different organism. The psychologist and physiologist have clearly demonstrated this. They have shown us the regular developmental changes thru which the child passes; they have revealed the fact that his primitive instincts are behind his interests, and therefore at the foundation of his education. They have shown, too, that among these instincts, the constructive and decorative are fundamental, or in other words that to grow he must build, must design, and plan. The child's schooling, as a whole, must give him knowledge of his social relationships.

One thing more the psychologists have taught is, that constructive training is necessary for him who is to comprehend the world's constructive life; for him who is to learn the meaning and necessity of the social service which later he will surely have to render.

This change in our educational philosophy has had its effect upon the theory of the art of drawing and construction. These subjects can now no longer be offered as motor drills, or mere training in manual dexterity. Their chief function is more evidently a response to a natural and instinctive demand on the part of the child. They must serve a common purpose and must act to a common end. It is thus evident that far more intimate relations must be established between them. As Manual Arts these subjects must include all the forms of practice in representation, in making and decoration that may be taught in the elementary school. Work in paper, clay, and wood forms but a part of this practice. Work in chalk, pencil, or crayon form but a part. Embroidery, sewing, weaving, basketry, or metal work, each falls into its place in the general scheme, which looks not to the specific subject, but to the manner and purpose of its teaching.

What shall be the purpose of such teaching—or, to put it more tersely—what are the arts "good" for educationally?

They are good on the physical side because they give that motor training without which there can be no perfect sensory development, no perfect co-ordination of sensor and motor brain, no perfect relation of impression

Abstract of address before Connecticut State Teachers' Association.

and expression. They are good as developmental aids. They train the child to nicer discriminations in sensation and more definite habits of will. They make him an executive, a planner, and doer. They are a help to habits, schooling him to neatness, independence, system, and order.

They are good on the mental side because of the processes of thought made necessary. They demand self-expression, original, and individual work. They are good because they follow the child's natural growth and give him at the moment when he is best fitted to receive opportunities to test his own powers to create, to fashion, and adorn. They give him knowledge and stimulus which cannot be conveyed in any other way.

They are good socially because they reveal how the world about him has grown, and the fact that he has in him the power to add to that growth. They are good because they practically acquaint the child with the laws of beauty, as such laws enter into the structure and decoration of things for use, because they thus meet the desire for beauty half way. They recognize such desire as instinctive and turn it to useful ends. They are good, too, because they offer to the teacher a direct method of approach thru the child's interests, and because they may be made to serve as an additional bond between teacher and child and between school and home.

Lastly, they are good, economically, because they bring home to the child his social relationships, because they give him an industrial bent with both knowledge and training which will serve him well, no matter what may be his future trade or profession, because they give him too, a constructive point of view which enables him to read in any constructed form the general processes which brought it into existence.

If the significance of this change in the theory of the arts is realized it will be seen that they are no longer to be conceived of as forms of a special practice, but rather as a principle or mode of education.

How, as a "mode," may they be made of use in any class-room?

First, by making the problems rise out of real class-room needs. Drawing should be used in illustration, making should be of things useful when completed. No uniform series of models can be offered for a number of schools, or even for any single school. The forms should rise out of immediate necessity, and the free hand and mechanical drawing, the construction and design should all be enlisted in the production of the complete model. Each process will then make evident its purpose, and each child may, while realizing the value of such process, have opportunity to apply it in individual fashion.

To the teacher with the constructive point of view the range of such models is extensive. Furnishings for the school may be made, pieces of apparatus, and a host of lighter appurtenances, note-book covers, portfolios, and the like, which every class-room must have. Other forms may serve to make clear the historical development of the industries which the child reviews in his study of the rise of the race, or may serve us to introduce the pupil to the fruitful field of home industries and the minor crafts. The teacher who understands the purpose and value of the arts will, thruout her daily work, seek for opportunities for motor expression and will not be satisfied with any lesson so emphasized until it has been made a constructive as well as a mental memory.

The materials of the arts should be varied. The child should learn his power of control over many plastic and pliable things—over string, yarn, clay, raffia, leather, wood, or thin metal. The occupations offered should be typical, and every model should show to the child the relation of plan and design and the possibilities of refinement of form thru the study of the laws of taste. The arts should be made to lend to culture thru the search for beauty.

Every teacher may use the arts and every teacher should use them, as center and start point in the elementary curriculum, not as mechanical drills or exercises for

the production of show work. The technical exercises should be simple and perfection of technique neither expected nor sought. There should be personal initiative on the part of the teacher, and the pupil should be made a co-operative who is to be called upon for suggestions for problems as well as for their solution. The arts should thus develop naturally, should undergo no forced growth on mechanical lines, but should be rooted in the efforts of the teacher herself to reach the interests of her pupils, and, thru such interests, to develop power.

To succeed, the teacher must know the simple technique represented by three or four typical processes of making; she must be able to draw with some skill and must know the fundamental principles of balance, rhythm, and harmony in design. Given with these an appreciation of the fact that the arts are one and that as a unit they must be used to lead the child as an active agent from the crude beginnings of his first expression to the refined product of many processes, there will be no question of her triumph. The arts in her hands will serve—as they should serve—as agents in the making of the school, not a training place for life, but a place where the child lives.

Personality of the Teacher.

Abstract of Address by PRES. WILLIAM DEWITT HYDE,
Before the Connecticut State Teachers' Association.

Personality is what wise employers of teachers try to secure above all else. People with mean natures and small souls never ought to try to teach. Still, personality is greatly capable of cultivation. It is largely an affair of our own making. Five great schools of teachers tried to find a solution of this problem. They were the Epicurean, the Stoic, the Platonic, the Aristotlean, and the Christian. Whoever follows the teachings of all these schools will become a popular and successful teacher, and anyone defective in a majority of them is unfit to teach.

The Epicurean idea was that one should get at all costs as many pleasures as possible. Teachers should have good food, no hurried meals, a comfortable room in which to be quiet. In the long run these are half the battle. Teachers should not deny themselves these. Restful quiet and good food are necessary. Next is needed wholesome exercise. The teacher shut up for five or six hours must have one or two hours under the open sky every school day, care free. The teacher should do a lot of outdoor things in vacation and the one who doesn't is falling away even from this low ideal.

The Stoic teaches one to keep the mind free from all worry and anxiety; the mental states make the man. The teacher's troubles can be reduced by reducing the mental worries. The blunders once made should be left behind, not brooded over. There is no situation in which we can not be masters, is the Stoic's lesson. Every teacher must some time learn it. The teacher's life is more full of general discouragements than any other profession, but the Stoic formula, faithfully applied in reasonable limits, will overcome them. Teachers should live in care-proof compartments.

Platonism bids us rise above this world. Platonists were not the most agreeable people to live with. Much that passes for Christian religion is simply Platonism in disguise. Still, it contains some truth that every teacher ought to know and sometimes apply. A teacher would hardly keep his poise without these Platonic resources, but moderation is necessary.

By the Aristotlean school man, was to find his end here and now on earth, not in Heaven. Teaching is an extra hazardous profession as far as nervous energy is concerned. The teacher's problem is one of proportion—what to select, what to leave out. The essentials to the main end ought to be taken, the others left. The teacher must say no to calls good in themselves, but not

for themselves. Amateur theatricals, church fairs, dancing and dinner parties ought to be taken part in only in great moderation. One service Sunday is as much as one can well attend, and Sunday school teaching is the one thing that the conscientious public school teacher must rigidly refrain from. Physical health and vivacity of spirits must be maintained at all costs. Teachers should be sure what they do is best for them and then never mind what people say. Teachers should have their own individual ends in view.

The counsel of the greatest teacher remains. Christ says to the teachers to make the interest and aims of each pupil their own. Where the un-Christian teacher's

work ends, the Christian teacher's work begins. Teacher and pupil are engaged in a common work. The attitude of the Christian teacher is, "Come, let's do this work together, I'm ready to help you and want you to help me." The un-Christian teacher is not concerned with the home life of the pupils, the Christian teacher knows his pupils and their homes. The successful teacher looks forward to the pupil's future. Teachers learn to see with pupils' eyes, share their work, rejoice in their success, be more sorry than they at their failures, lead them, never drive. Any teacher who can combine the five qualities I have mentioned will find teaching a pleasure and achieve success.

Education at the British Association.

By Cloudesley Brereton.

Last year at Belfast Prof. Dewar devoted a large portion of his presidential address to the question of improving our national education. This year Sir Norman Lockyer went one better, and, leaving his own particular branch of science out of account confined himself exclusively to pleading the cause of university education. Some have caviled at his discourse. Certainly it was not well put together; repetitions were frequent, and the audience rather wearied of the perpetual comparison between education and ironclads. It cannot be denied either that the claims of secondary education were ignored and the need of a sound foundation on which to build solid university training was passed over in silence. Again, to start by asking for a vote of twenty-four millions, however much the late war has taught us to think in millions, was a "tall order." But still, when all is said and done, the address contained an immense amount of truth that badly wanted saying. It put before the English people clearly and definitely the enormous sacrifices other nations are making in the matter. It disposed of the myth that private initiative, or even local effort can meet the calls of university education. It rubbed in the vital need for endowing research, and made it clear to the meanest intellect that university education is a form of national insurance every whit as important as the maintenance of the navy. Even if it neglected secondary education, the neglect is not so important as it looks. Just as the boom in favor of technical instruction brought out the need of strengthening secondary education, so the movement for increasing university efficiency must inevitably conduce to the same result.

Section L reflected the growing interest in educational questions. The attendance was even larger than last year, and the points of view represented by the various speakers were more varied than at Belfast. The debates, if at times too discursive, undoubtedly gained in breadth by the presentation of divergent opinions. Sir William Abney took for his presidential address the subject of the action of the state in encouraging the teaching of science. His paper was practically a history of the old Science and Art Department, *quorum pars magna fuit*, as one speaker happily put it, and as such contained a good deal of useful information not readily available elsewhere. This cleared the way for what was the real *piece de resistance* of the meeting, the discussion of curricula. The papers to be read had already been published in one of the educational journals.

Professor Sadler, who opened the debate, set the example of not reading his paper and talked round it, and the other writers of papers followed suit. He remarked on the extraordinary unanimity displayed by the eight persons who had contributed absolutely independent papers. In eloquent terms he laid down the three fundamentals to be aimed at. The first was to get the whole body of English people to believe in knowledge; the sec-

ond, to secure that there should be an effective opening for ability in all classes; and the third, to adhere to the principle that education was a threefold thing—a training of body, mind, and heart, and that in education manners mattered a great deal. He insisted that the teaching problem was largely economic. We must pay our teachers better if we want to get the right people. As to girls' curricula, there was an extreme danger of overworking girls between the ages of thirteen and sixteen, but no one wanted to go back to the old narrow lines of girls' education. Among other matters requiring reform he enumerated the neglect of the mother tongue, premature specialization in classics (he said the public school entrance scholarships were rapidly becoming an educational curse), the insufficient attention given to manual practical work, the cram induced by excessive examinations, the inadequacy of much of our historical and geographical teaching, the shortage in properly trained modern language teachers (he thought an outlay of £20,000 a year on traveling scholarships abroad would be a fine investment), the dangers of over-teaching, the desirability of every school publishing its curricula and stating its aim, the need of thinking out the standard of character we propose to set up as an ideal for our pupils. Such are the merest dry bones of a paper which teemed with suggestions and suggestiveness, and of an address which in breadth and depth was certainly the best of the many good addresses which were given at the meeting.

Professor Adams deplored the total absence of the literary spirit in the scientifically trained pupil of to-day. Mr. Page, who followed, tried to clear up matters by insisting on the distinction between education as a mental training, and education as the imparting of information. Science, so long treated as a Cinderella, now posed as a ruler. The real masters to-day were the complex and confusing examinations. The quality of the teaching was still more important than curricula; yet how were they to improve the quality, unless the teachers' prospects and security of tenure were improved? Mr. Daniells gave a *resume* of the Teachers' Guild inquiry into the subject, and urged that curricula should govern examinations, and not examinations curricula.

Miss Maitland declared that the difference between England and other countries was that the English people as a whole did not believe in education and the foreigner did. She made one very telling point. Complaints were made about the education received by girls in elementary schools as not always fitting them for the life they had to lead. But who were to blame? Surely the reformers of 1870, who had confided the entire composition of school curricula to men, and men only. She also traversed many of the statements in Professor Armstrong's paper. Mr. Yoxall pleaded for the establishment of an educational laboratory in which the best methods of teaching particular subjects could be investigated. Mr. Gray expressed alarm lest the new local authorities should require in the schools under their con-

THE SCHOOL JOURNAL is indebted to the London Journal of Education for this excellent summary of the meeting of British Educationists at Southport.

trol an education of too exclusively a utilitarian character.

To keep the discussion within bounds a certain number of resolutions were submitted to the meeting. The first dwelt on the need of deferring specialization to as late a period as feasible in the school career, and on the necessity of laying a good foundation in English, together with drawing and elementary science. The desirability of passing cut and dried resolutions was challenged, and it was subsequently stated that these resolutions were not meant to be in any way binding on the meeting, but represented, rather, pious expressions of opinion—reflecting, so to speak, the general consensus of the meeting. The first resolution certainly erred on the side of indefiniteness, which some apparently considered a virtue, while others pointed out that it was liable to misconception, there being at least four different meanings attached to the word "specialization" by various speakers. However, like that blessed word "Mesopotamia," its extreme vagueness commended itself to the small majority who voted in its favor; a much larger proportion of those who were present did not vote either way. The second resolution was more to the point. It dealt with the postponement of Latin till the age of twelve, and the limitation up to that age of language teaching to the mother tongue and to one modern language. This resolution, tho it directly attacked premature specialization in the teaching of classics, was passed unanimously. It should prove welcome to many heads of preparatory schools at present caught in the *engrenage* of the scholarship mill, and to those head masters of public schools who are beginning to recognize the dangers of the present system. The third resolution, which dwelt on the need of education including at once both practical and literary instruction, was passed, after Mr. Page had pointed out the vagueness of the terms used.

The question of girls' education was next discussed. Miss Burstall in a happy speech gave an admirable *resumé* of the present aims and ideals in female education. She traversed at a considerable length the following views expressed by Professor Armstrong, which may be cited as giving a very fair view of the opposite pole of opinion:—

When I consider . . . what girls generally are doing, I am in despair—the training is so hopelessly impractical, so academic, so narrow in its outlook. There is so little insight and originality displayed by women in diagnosing and providing for women's requirements; female educators are so obstinate and difficult to persuade, so limited in their conceptions. It is a very serious outlook for the country that the higher education of women is almost entirely in the hands of those who have been trained in schools where academic views prevail almost exclusively. The very fact that women have only asked that they should be allowed to do as men do, to have what men have, is proof that they have failed to understand the position they hold.

In spite of Miss Burstall's attack, Professor Armstrong, while complimenting his assailant, pluckily stuck to his guns, and, to support his point of view, read two interesting letters from two ladies, criticising the present education of girls and dealing more especially with the servant difficulty. Mr. Yoxall gave an apt, if somewhat unkind, parody of their contents by comparing the *desiderata* they contained with the list of accomplishments taught in Becky Sharp's finishing school. He also took Professor Armstrong to task for his hardihood in passing judgment on every phase and form of education. Mr. Dyche also joined in the chorus of hostile critics. An interesting point was raised by Mr. Gray, which, however, was left unanswered—namely, the desirability of including a limited number of male teachers in girls' schools and colleges. The most noteworthy features in the discussion were the strong feeling in favor of differentiating the girls' curriculum from that of boys for pupils between the ages of twelve and sixteen, and the comparative unpopularity of co-education in secondary schools. The latter was apparently regarded as a sort of *pis aller*, only to be employed where, for economic reasons, separate schools for the sexes were impossible.

Two very useful resolutions were passed by the meeting: one dealing with the question of overpressure, and suggesting that girls preparing for college should stay on till eighteen; the other urging on county councils to permit girls obtaining a county council scholarship at seventeen to remain, if they pleased, another year at the school. A word of praise is certainly due to the movers of these resolutions, which were really practical in the best sense of a word which, after "specialization," was one of the most abused shibboleths of the meeting.

In the afternoon Mr. Paton gave an excellent address on "Commercial Education." He dwelt on the need of raising commerce to the level of a profession, deprecated special schools of commerce, and advocated commercial sides. Very interesting was his explanation of how commercial education in London must necessarily largely differ from commercial education in, say, Bradford or Manchester. Space does not permit of discussing or even enumerating the many interesting and suggestive points he raised. Mr. W. C. Fletcher, who was apparently surprised to find himself among the commercial prophets, talked on matters of curricula in general. The other speeches do not call for any special notice.

Saturday was devoted by those who were educationally minded—not a few educationists played truant—to a visit to the great Jesuit college at Stonyhurst, a veritable object lesson on Catholic education. On Monday Mr. Mackinder gave a very able address on "The Teaching of Geography." He advocated "sets" in geography, competent teachers, and sequence in the treatment of the subject in public examinations. The better way of teaching geography in schools was the regional, rather than the physical, method. The division of geography into topography and physical geography had paralyzed the teaching of the subject in schools. He then gave a list of stages thru which the pupil should pass. The first should begin with the home, but include simple notions of the sun, stars, and the globe; the second should deal with the physical features of the home district; the third with the home country, *i. e.*, the British Isles; the fourth should be devoted to a comparison between the home country and Europe; the next to the rest of the globe; and the last stage would represent university study. The universities must encourage schools of geography within their gates, teachers must be appointed for geographical attainments alone in the schools; a uniform progression of method, tho not in the form of a stereotype syllabus, must win general acceptance, and examination papers must be set by expert geographical teachers. Messrs. Richardson, Hewlett, G. Fletcher, Cloudesley Brereton, J. L. Holland, Professor Gregory, and others either read papers or took part in the discussion.

The remaining sessions were taken up with the presentation of the report on "The Teaching of Botany," on "School Hygiene," on "The Influence of Examinations," and on "The Teaching of Science in Elementary Schools."

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The Salary Matter.

By Supt. WILLIAM E. CHANCELLOR, Bloomfield, N. J.

I told a teacher that I was going to write an article for an educational paper regarding salaries, and she advised me to write it instead for a daily paper so as to reach the people. This is what ninety-nine out of every hundred persons now or at any time engaged in teaching think, and this is why salaries are so small. To urge the people to pay teachers more is to emphasize in public opinion the notion that teachers' salaries are gifts, not compensations. As long as the people think that teachers are being given by them what money is spent upon education the amount of money so devoted will continue to be very small.

All charities tend to be cheap.

There are just two reasons and no more why teachers receive what they do and neither more nor less than they do receive. These two reasons are both within the control of teachers themselves. The first is that we who work in schools, whether as supervisors or as instructors, continue to tolerate among us many incompetents. The average salary paid to teachers is all that teachers are worth on the market. Eliminate the incompetents and prevent by sufficient legislation their replacement and salaries would advance at once. This is well within the power of teachers to do.

The second reason why salaries are what they are is because most persons who teach are well content with what they receive. The discontented who continue in teaching are few. Many men of ability and of success reach too early in life the largest salaries now afforded by the work and leave education for other fields. Similarly very many women, doubtless half or more, begin the work, succeed to a degree, and disappointed in income, take the earliest opportunity to give up the occupation. As a profession, in so far as we are a profession at all, we are contented with what we receive, because we do not take time or thought to consider what educators ought to receive.

I propose to deal with these two causes of low salaries: viz., the presence of many incompetents, and our general contentment with the earnings of the profession. What are the remedies?

1. Bar out by legislation, state and municipal, all new incompetents, by raising the legal standards of certification of competents to teach for public money. This legislation, whether by state legislatures, or boards of education or by municipal boards, should clearly discriminate at least three grades of educators and the specialists: viz., superintendents, principals, and general supervisors, and class teachers, with specialists in all the recognized lines. There can be no objection to an ordinary grade teacher holding a superintendent's license but there ought to be a deal of vigorous and effective objection to a superintendent holding only a teacher's license. I believe that the greatest bar to progress in American education is the incompetence of most superintendents to do their duty. Most superintendents are not both educators and statesmen or politicians, and every superintendent ought to be fundamentally and immovably an educator and also either a statesman or a politician or both. Most superintendents are either only educators, sometimes only teachers, or only politicians.

Such a gradation of educators would at once distinguish teachers in the public mind by differentiating them. And since it involves selection of only competent teachers in the third group, which may perhaps be styled the lowest, it would immeasurably raise all. Is such a gradation necessary? Even in comparatively enlightened New Jersey not half of the public school teachers are normal school graduates, little as that may imply to the discerning.

2. Drive out by criticism or at least by refusal of support all incompetents now in the profession. Has a "quack" teacher, supervisor, or superintendent any better right to make a living by teaching than a "quack" physician or dentist by his occupation? I think not.

This is not the occasion to say why not. But it is the time to say resolutely and publicly that no person has a right to teach until his competence has been determined by those competent, legally appointed by the state and responsible to it for their actions.

I am well aware that a drastic enforcement of this standard would result in great changes. I am for such an enforcement as speedily as possible. I desire myself to be freed from the competition of the incompetent. And I desire all children to be freed from the oppression of the incompetent. Have the children and youth in day schools, and the youth and adults in evening schools no rights!

Why are salaries so low? Because when the expert tries to get an increase in salary he meets the reply, "Oh! well, we can get plenty of others just as good!" This is not true. What is true is that there are always plenty of candidates. A drastic enforcement of requirements of licenses would do away with the appearance of many candidates.

There is a persistent public impression that there is an over-supply of teachers. This is due to two facts. First, that every spring nine-tenths of the rural teachers and many of the urban teachers are ready to take wing, being "birds of passage." The average length of service of female teachers is but five years in all. But the service of female teachers who are normal school graduates is much longer. Preparation for the profession lengthens the term of service in it. A record of the average tenure of office of superintendents in a great Northern Central state showed that the term was less than two years. Yet in the fall of any school year when a board of education seeks a superintendent, the candidates are very few. And the superintendent who looks for unemployed normal school graduates finds none.

The second cause of the public impression of an over-supply is due to the inability of the laity to discern between the candidate who is a teacher and the one who is not. Not every person seated in authority in a classroom is ready to do the work God intends to be done there. Not many persons in principal's office have the mind and spirit for the work. We who mean to be expert educators must discriminate for the public.

The second cause of low salaries is our contented professional mind. We hear that a city of 100,000 people spends \$600,000 annually upon its schools; and we think it a vast sum. Such a city probably spends \$3,000,000 for alcoholic drinks and \$1,250,000 for tobacco.

It probably supports 100 physicians to whom it pays at least \$1,000,000 gross income.

Just think for a few minutes what these figures mean:

National bill for alcoholic drinks	\$1,200,000,000
National bill for tobacco	750,000,000
National bill for education	275,000,000

Notice also that economists estimate that the national wealth has grown \$20,000,000,000 in ten years, that is \$2,000,000,000 a year, yet some people argue that we cannot afford to pay more annually for the education of our people. More of the surplus should go to education.

Americans would get better educations if we paid more for educators, would make wealth still faster, and above and beyond, beneath and within all else, would grow more in health and freedom of body and soul. A better national education will give us a better country, a better people.

And the only way of salvation is by ourselves. We must do it. The educator must educate himself yet more. "If the salt has lost its savor, wherewith shall it be salted?" It is not only useless for us to ask others to make education a satisfactory livelihood for educators, the laborer being worthy of his hire, but it is unpatriotic and disloyal to humanity for us to expect others to assist us to perform our function. Lawyers, physicians, dentists, make no appeal to the public to help them. They help the world by helping themselves. Let us take the same dignified, self-reliant attitude, consolidate, redeem, improve ourselves. Each doing his part the whole is done.

Proposed Outline Course in Nature Study. II.

(Presented to the Chicago Principals' Association by its Committee on Nature Study.)

(Continued from THE SCHOOL JOURNAL of October 17.)

Grade IV.

Physiology.

Foods and Digestion.—Effect of doing without food. What is starvation? Use of food. Keeps us warm. Temperature of the body is usually higher than the air that surrounds us. Food repairs tissue. Work of any kind uses up tissue. When we think, or move, or even when we breathe, we are using up tissue. The waste tissues escape in the breath, the skin, and thru the excretory organs, such as the kidneys, and all of this waste must be restored.

2. Make a list of all foods we eat that never spoil; of the foods that do not spoil easily; of those that spoil quickly, especially in warm weather. The foods that never spoil are really not food, they assist in keeping the body in tone, as air, water, and salts. Those of the second class do not primarily nourish us. They are rather heat producers, such as white bread, and butter, lard, oatmeal, and some fruits. The third class, tho they spoil easily, are the best muscle builders: meat, milk, eggs, fish, and oysters.

All the parts of the body must have their proper food if we are to grow and keep healthy. We could not long live on bread alone. Meat alone would do better. What peoples live largely on flesh?

Which of the senses have to do with getting our food? What has each to do?

How should the food be prepared before eating? Before putting it in the mouth and before swallowing? How often should we eat? Why is it harmful to eat more or less continuously or at short intervals?

Show pictures of the different parts of the alimentary canal. Show the digestive organs of a rabbit, if it can be done without creating prejudice. It will give a better idea than can be done by any other means.

Zoology.

Migration of Birds.—At the proper season of the year have children report and record the names of birds that are seen on their migrations. In order to recognize the birds, either good pictures or mounted specimens will be necessary. Teach enough of the topography of a bird to render possible ordinary general descriptions. The general differences of beaks, toes, wings, color of different parts of the body; the crown, throat, breast, rump.

Squirrel or Rabbit.—A pet squirrel or a pet rabbit may be made the basis for this study. As much as can be told of the habits of the animals should be accompanied by as much observation of the structure as can be seen. Notice the toes and the soles of the feet. How is a squirrel enabled to climb a tree? What is the use of the tail? What advantage are the long hairs, "whiskers," at the side of the mouth? Where does the squirrel make its home? What is the food of the squirrel? How is it enabled to crack nuts? Compare the teeth of the squirrel with the teeth of a cat or a dog. The squirrel is a gnawer or rodent. What other animals are related to the squirrel or rabbit?

Aquarium Study.—Useful aquaria may be made from any jar or dish that will enable the animals in the water to be seen thru the sides. Observations may be made upon these animals from day to day, each day's efforts being directed toward answering some one question concerning the animal under observation.

One of the most instructive forms is the crawfish. In early spring young crawfishes, as well as the older ones, are easily obtained. Children may be led to answer from observation some such questions as the following: How does the crawfish swim? What legs are used in walking? What does it eat? When frightened, how does it move? Do the eyes move? What is the use of the antennae? Discover, if possible, the cast-off shell. The shell of a young crawfish is likely to be cast off two or three times in one spring. What does the crawfish eat? Can you observe any movement in the water at the under edges of the shell? What movements have the swimmerets? How is the tail operated?

2. Water larvæ. Many insects undergo their transformations in the water. While many of such larvæ are predaceous and will eat other living things that are in the water, it is worth while to study their habits in an aquarium. Some of the most instructive forms are larvæ of dragonflies. The complete metamorphosis of dragon-flies and mosquitoes can be observed in a small aquarium.

3. Hawk, gull, crow, swallow. If mounted specimens of these birds can be procured, it will be easy to become familiar with their appearance. The principal thing about the hawk is to observe its adaptations to the habits of life. A hawk preys upon other birds and small animals. It therefore never lives in flocks. It is provided with long seizing claws; it has a sharp hooked beak. It flies swiftly, and since its food is mostly meat, it does not have a strong gizzard such as birds do which are accustomed to grind up grain.

The gull is a long-winged bird that flies over the water. It differs from the hawk in the fact that it does not seize living prey, so it has different kind of claws and beak. The crow eats grain and insects. It is somewhat injurious to young corn, pulling up the plants as they appear in order to get the kernel. Origin of the word scare-crow, and how it has come to mean what it does now. A swallow catches living insects as they fly. It is therefore necessarily a very swiftly-flying bird, and has a wide mouth or gape. Meaning of "swallow-tail."

Botany.

1. Study of six or more common weeds. Have pupils recognize at sight six or more of the common weeds not previously studied. Let them learn to recognize the seeds, and the young plants, if possible tracing the complete development. The plants may also be studied in the school-room, for the purpose of fixing more in detail the special peculiarities of the plants.

2. Make collections of fruits, nuts, and vegetables, both native and foreign. Let pupils discover that fruits and seeds are the outgrowth of blossoms. Detect any traces of the original blossom that remain in the fruit.

3. Observe the changes that trees undergo upon the approach of winter. Some trees shed their leaves and some do not. What are those trees called that do not shed their leaves? What products are obtained from coniferous trees? Plant some pinon nuts or any other evergreen seeds, note the number of seed leaves in the plants as they first appear. Let pupils bring specimens of evergreen leaves and cones.

4. As spring approaches continue collections of spring flowers. Note the changes that occur in trees as they put forth their leaves, blossoms, and fruits. Have pupils find out which trees have a great amount of sap and what effect that has upon a tree's growth.

Geology.

Erosion and Sedimentation.—The purpose of this study is to lead children to see what effect water has upon soils. Observe how rain will move the dirt in the street. Stir up some earth in a vessel of water. Observe how the mud settles as the water clears. Is there any difference in the top and bottom of the settled material? What kind of material settles to the bottom layer? Let water drip slowly from a large bottle upon a body of earth in a sand pan. Observe the effect in moving the soil. Rub together pieces of stone to show how soil is made from rock by attrition. Rub together pieces of rotten wood for the same purpose. Mix the powdered decaying wood with the powdered stone and compare the mixture with soil.

Observe the effect of running water upon the sides and bottom of a ditch. Apply the knowledge thus gained to the formation of hills and valleys in a landscape. Effect of sod and other vegetation in protecting soil from erosion. Nearly all hills are formed by erosion.

Fossil Ferns and Coal.—Fossil ferns are found in clay nodules in which their forms are almost perfectly preserved. When pupils are able to recognize a fern they will have no difficulty in recognizing the fossil ferns as of the same nature. Some of the best specimens of fossil ferns are to be found near Morris, on Mazon creek. In coal mines, and in coal that comes from the mines, other evidence of former vegetation will be seen. From this children will easily pass to the fact that vegetation may have been preserved from the time that the coal was made. In fact that coal is only the remains of vegetation that once grew on the earth.

Corals.—In the same way, from a study of corals, children may be led to recognize the peculiar forms that occur in limestone as remains of animal forms that once lived. Have children examine and learn about the life of corals. Proceed from this to the consideration of the condition of corals after the animals have died. Recognize limestone as the accumulated remains of animal bodies that once lived in the sea. Marble is limestone that has been much changed by heat so that it has become crystalline and nearly all the indications of animal skeletons have been destroyed.

Limestone.—Test limestone with acid. The production of bubbles is a fairly satisfactory evidence of its limestone nature. Uses of limestone for building; for making lime; use in mortar, for plastering, for laying up brick walls. Use of marble for inside decorations, for monuments.

Pebbles.—Collect pebbles. Observe that all pebbles are smooth and rounded off, no sharp edges. Observe, if possible, the action of waves on the lake shore in moving pebbles. The constant rubbing and pounding of the pieces of stone wears them smooth and makes the rounded pebbles. Distinguish limestone pebbles from pebbles of granite rock that are common here. Find, if possible, fragments of rock that are not smooth and rounded. The granitic pebbles are nearly

certain to be the product of glacier action, brought down from the north by ice. The limestone pebbles are more likely to be produced near this place, not having come so far. Pebbles are always evidence of the action of water or ice, and the formation of pebbles shows the way much soil has been produced.

Astronomy.

1. In December and in March and in June observe by the clock, or watch the actual time of sunrise and sunset. Calculate the length of day and night from these observations. After this observation has been made, refer to the almanac for the times of sunrise and sunset, and calculate the length of the day whenever desired from that.

2. Observe that in December the day's length is the shortest and the night is the longest. Observe that in March the day is just as long as the night. No explanation of these facts need be attempted. They are facts whose explanation ought to come later. In June the day is much longer than the night.

3. Observe the constellation of the Great Bear. Notice the stars that form the great dipper. The two stars called the pointers indicate the North star. The North star is called Polaris, and is very near the north pole of the sky. It is almost directly over the north pole of the earth. On the opposite side of the pole star from the dipper is the constellation of Cassiopeia. A figure of a chair may be seen in it. Relate the mythological story of Cassiopeia. Just beyond Cassiopeia is seen the constellation of Andromeda, which is easily observed in October, November, or December in the evening. Learn the mythological story of Andromeda. Serviss's Astronomy with an Opera Glass is very serviceable to a teacher here.

4. Some very bright stars are always seen in the sky. Most of the bright ones are known by their proper names. Learn the names of some six of the brightest stars in the sky, and teach the children to distinguish them from planets. Planets change their places with reference to the other stars in the sky; the fixed stars always maintain their relative positions.

Physics and Chemistry.

Oxygen.—1. Study of oxygen. It is of importance that children should obtain a content for the word oxygen as soon as they can be taught to do so, because of the great importance of the substance in the understanding of the processes of life. The substance is known by its properties, and the sum of the properties constitutes the notion that we obtain of the substance. It is essential that the pupils be made acquainted with as many of the properties of oxygen as possible. The pure gas can be obtained easily by a little experimentation in the ordinary school-room. We recommend the following simple plan, as it involves no danger and is easily worked.

Mix 25 cc. of water and 25 cc of nitric acid in a Florence flask whose capacity is about 200 cc. Have a one-holed rubber stopper that fits the flask. Thru the stopper pass a glass tube and to its outer end attach a rubber tube about two feet long. Then pour into the flask a mixture of 25 grams potassium permanganate and 25 grams of red lead. Place the stopper in the flask. Now fill a 2-quart glass jar with water and invert it in a pan of water. Gently apply heat to the bottom of the Florence flask and place the open end of the rubber tube under the edge of the inverted glass jar. Bubbles of gas will enter the jar and displace the water. The gas is oxygen and generally the amount obtained from the quantity of mixture indicated is about two quarts.

2. Properties of oxygen. The properties of oxygen that the children can observe as the result of experiments performed by the pupils themselves, or with less advantage by the teacher in presence of the class, are as follows:

- (a) Oxygen is a colorless, invisible gas.
- (b) It will relight a splinter that is tipped with a glowing coal.
- (c) It makes wood and other things burn.
- (d) It will burn a steel wire or a watch spring that is placed in a jar of oxygen and lighted with a match.
- (e) Oxygen constitutes a part of the air.
- (f) Oxygen is the part of the air that is necessary for breathing.
- (g) Without oxygen a splinter or other substance will not burn.

Carbon Dioxid.—The properties of CO_2 are to be observed in the same manner as are those of oxygen. CO_2 can easily be obtained by pouring hydrochloric acid over powdered limestone or baking soda. Fit a bottle with a cork or rubber stopper having two holes. Pass a thistle tube nearly to the bottom of the bottle thru one of the holes, and a short glass tube just thru the cork thru the other hole. Connect a rubber tube on the outside of the short glass tube. Put powdered limestone or baking soda into the jar, and pour over it hydrochloric acid thru the thistle tube. Collect the gas by letting it flow into a tumbler or bottle.

The properties that children can observe are:

- (a) That CO_2 is an invisible, colorless gas.
- (b) That it will extinguish a blazing splinter.

(c) That it can be poured from one bottle to another.

(d) That it will turn lime water white.

(f) That if lime water is shaken in a jar of CO_2 at first the lime water turns white but afterwards becomes clear again.

The explanation of this phenomenon explains also the method of formation of limestone caves. At first the lime water absorbs CO_2 , and produces CaCO_3 , or limestone, which is insoluble in pure water. As the shaking proceeds the limewater is all changed, all the limestone possible being formed, but the water keeps on taking up CO_2 . When water becomes charged with CO_2 it will dissolve limestone, so the whiteness disappears, the CaCO_3 being dissolved. Limestone caves are caused by the dissolving out the limestone by water that has taken up CO_2 from the air.

(g) That CO_2 is produced by the burning of wood.

(h) That CO_2 is produced by breathing of animals.

Composition of the air. Under a large jar place a small piece of phosphorus floating on water in a tin box lid. Set it on fire and quickly place the jar over it. The white fumes that arise are phosphorus oxides, caused by the burning of the phosphorus with the oxygen. The white fumes will soon be absorbed by the water and the water will be found to have risen in the jar. The amount of water that rises in the jar indicates roughly the amount of oxygen that has been burned and the part of the air that is oxygen. It will be found to measure from one-fourth to one-fifth of the whole amount of air.

Nitrogen.—That part of the air that remains is nitrogen. It will not burn, or it would have burned with the phosphorus. It is an inert, inactive gas, colorless like oxygen and CO_2 . It puts out a flame like CO_2 , but unlike CO_2 it will not turn lime water white. This will easily distinguish it from CO_2 . The air is composed of about one-fifth oxygen and about four-fifths nitrogen.

There are few properties of nitrogen that can be observed because of its inertness. It constitutes a large part of gunpowder and most other explosives. It is so feebly combined that it is ready to let go of the things with which it is combined, and it is this letting go that produces the explosion. It constitutes a part of the tissues of animals and plants, and its readiness to let go causes these substances to decompose easily. Since animal and plant tissues are composed of nitrogen, plants need nitrogen in the soil as a fertilizer. Plants cannot use the free nitrogen of the air as food, because it will not combine in this way.

It is the weight of the air that makes the pressure. Perhaps it is better to say that the same cause that makes the air weigh something, produces the pressure. If the air is pumped out of a thin glass flask the flask will burst. If the hand be put over the top of an open receiver when the air is exhausted the pressure will be felt. If a rubber sheet be placed over the receiver instead of the hand, the rubber will be greatly pressed in by the weight of the air. A thimble may be caused to stick to the hand by sucking the air out from under the thimble. The air presses downward, upward, and in all other directions with a force of about fifteen pounds to the square inch. Upon this fact depends the explanation of the action of a suction pump, siphon, and many other pieces of apparatus.

Grade V.

Physiology.

Movements of the Body.—1. Examples of movement; arm at the elbow. Observe the changes in shape of the biceps muscle. Measure the swell of the muscle. Give the name of the muscle. Correlate the change in diameter of the muscle with the movement of the arm, and observe that the muscle shortens. Determine as nearly as possible the points of attachment of the muscle.

2. How motion is produced. Observe that motion in the body is always accompanied by the shortening of the muscle. Observe or infer the facts about the attachment, origin and insertion of a muscle. Illustrate by the tendons in a chicken's foot.

3. Straighten the arm. Observe that a muscle different from the biceps is needed to straighten the arm. Give the name triceps. With this as an example, illustrate or infer the necessity for the pairing of muscles. Discover other pairs. Nearly five hundred pairs of muscles in the body. Discover some examples of unpaired muscles.

4. Relation of bones to muscles. Bones are needed for the muscles to act upon in order to produce motion. Show the use of the arm bone in producing motion.

5. Necessity for joints. Examine the parts of a joint. Observe the ligaments, synovia, ends of the bones. Direction of movement of a joint. Hinge joint, ball and socket joint. Observe all the movements that are possible with the shoulder joint.

6. Structure of a muscle. Illustrate by examining a piece of boiled meat. See the fibers, tendon, and sheath.

7. Distinguish between voluntary and involuntary muscles.

8. The function of a muscle is to produce movement. Necessity for exercise. Forms of exercise. Rules or cautions relating to exercise. Effect of over-exercise; fatigue.

9. Illustrate levers in the body in connection with the same topic in physics.

10. Parts of a long bone. Observe the spongy ends, the hollow cavity, the marrow, cartilage, and periosteum.]

11. Diseases of muscles and bones. Rheumatism; stiff joint; broken bone. Treatment of each.

12. Mineral and animal matter in a bone. Show how they may be distinguished.

Animal Life.

1. The purpose of the study of animals in this grade is, first, to gain a knowledge of insects for the sake of enlarging one's idea of life forces in his own environment; second, to show how insect's aid or hinder man in his struggle for existence. As a means of accomplishing this purpose, the child's natural instinct for collecting may be employed.

2. Study of a caterpillar (woolly bear). How it moves, eats its food, and where it may be found.

3. Study of the eyes, locomotion, breathing and feeding organs of a grasshopper or beetle.

4. Collection of insects and discrimination of orders (as flies, beetles, butterflies or moths, etc.).

5. Injuries produced by insects and means adopted for counteracting them. Benefits produced by insects and in what the benefits consist. The insects that are beneficial.

Plant Life.

The teacher should select material from the following:

1. Vegetables that are found in the markets: tomato, potato, cabbage, cauliflower, beet, beans, peas, radishes, turnip, cucumber, squash, melon, celery, onion, rhubarb.

2. Part of the plant that is eaten in each case. How and where each is produced.

3. Fruits. What fruits may be found in the markets? See oranges, lemons, bananas, peaches, apples, grapes, plums, apricots, berries, prunes, raisins. How and where each is produced.

4. Nuts. What nuts may be found in the markets? Hazel, filbert, hickory, pecan, Brazil nut, walnut, butter-nut, English walnut, almonds, "peanut." How and where each is produced.

5. Grains. Corn, wheat, oats, rye, barley, rice, popcorn, sweet corn. What each one looks like. Make and preserve collection in their natural (unhusked) state, also after they have been threshed.

6. Sugars. Maple, cane, beet, glucose, sorghum. How and where each is produced.

7. Plant fibers. Compare cotton and linen with the animal fibers, wool, silk, and fur. Uses of both kinds of fibers. Clothing: calico, muslin, gingham, cotton batting, cotton flannel, thread.

Linen: Clothing, handkerchiefs, table cloths.

Wool: Cloth, flannel, blankets, yarn.

Silk: Clothing, thread, bolting cloth.

Hemp: Rope, bagging, twine.

Fur: Clothing, hats.

8. Spring plants. Seedlings, parts, stem, cotyledons, roots. Bulb, root stocks, tap roots, earliest flowers. Observe and estimate the number of seedlings from a measured portion of cultivated ground.

9. Kinds of early flowers. Dandelion, violet, spring beauty, anemone. Willows, poplar, box elder, oak, maple, elm.

10. Make lists on the blackboard of wild flowers that the children bring in. Press and preserve specimens. Remember that the principal value of collections comes from the making of them and not from the possessing of them. Learn to recognize by name all the plants collected.

Geology.

1. Salt. Recognize by taste. Crystals, rock salt. How obtained. From mines, wells, sea water. Probable origin of salt beds.

2. Solution and crystallization illustrated. Use alum and copper sulfate.

3. Petroleum. Kerosene, lamps, oil stoves. Gasoline, uses, danger of explosion, engines, automobiles. Paraffine, candles.

4. How petroleum is obtained; oil fields, refineries.

5. Distribution; pipe lines, oil tanks, tank cars, wagons. Petroleum used as fuel. Burning bricks, steel foundries, glass works, illuminating gas.

Astronomy.

1. Angular measurement of the sun's noon altitude at the time of the equinoxes and solstices, for the purpose of showing that the sun's altitude varies 47 degrees. Also, to show the position of the sun at the beginning of each season. The altitude may be measured by a shadow stick or a skiameter.

2. Shooting stars. Observe a number. How many can be seen in one hour? (Ordinarily a single observer will see four or five in an hour. One observer can see not more than one-fourth of the sky at one time. Four observers, then, ought to see about sixteen or twenty in an hour. Since no shooting star is likely to be seen at a greater distance than 200 miles, it would require about 2,000 such stations to enable observers to see all that fall upon the earth in one night. If they fall upon the earth in the daytime at the

same rate, we see that the number that come to the earth in one day is at least 1,000,000, and perhaps the number may be as great as 10,000,000.)

3. Constellations. Observe Taurus. See the Pleiades and Hyades. Learn the star Aldebaran. Trace the path that the sun will follow thru the constellation.

4. Gemini. Observe Castor and Pollux. Fix the place of summer solstice, which is near the little star that is called Tejat. Cancer: Observe the cluster (Praesepe) and the two stars near it. Leo: Observe Regulus, Denebola, and the Sickle. Trace the sun's path. Ursa Minor: Observe Polaris and the little dipper. Connect with this the mythological stories that were intended to be commemorated by the names of the constellations.

Meteorology.

Keep a weather record for one month in the spring. The purpose of this work is to show how a weather record can be kept, and to make children observant of the weather. May is selected for this grade, so that the children may have an opportunity to observe carefully the gradual increase of temperature. This will necessarily be associated with the fact of growth in plants and other spring and early summer phenomena.

(To be continued.)

New York City Syllabi. XIII.

The Course in Constructive Work.*

The general purpose of instruction in the manual branches is the development of the power to observe accurately and to express freely; the development of muscular co-ordination, or manual dexterity; the development of individuality and originality in planning and execution; the fostering of a love of order, neatness, and system in work, of a love of beauty, and of appreciation of what contributes to that desirable attribute—taste. Further, the manual arts are taught to the child in order that thru the expression of his deep-lying instincts to tell, to construct, and to decorate, he may become conscious of his own powers and of their value, of his relation to his fellows, and to the world in which he lives. Things are planned and made in order that the child may gain the constructive point of view.

The course in the arts is thus presented as a co-ordinate whole rather than as a series of unrelated studies. The different branches—Drawing, Construction, and Design—are closely related to one another, in order that the exercises may rise as far as possible in the child's interest in his immediate surroundings. The necessity for using different forms of drawing and construction, in connection with his home activities and with the studies of the general curriculum, is thus made prominent. The manual arts are offered as an integral part of the general course of study; they form an essential element in its constitution.

The general arrangement of the course is conditioned by the indicated aims. Opportunity for abundant illustrative drawing is presented thruout the elementary grades, that the child may use such drawing as a means of expression. Instruction in object drawing is also systematically given, that from the entrance of the child into school he may steadily gain in the power to see, to make discriminative judgments, and to record the results of such judgments with ease and certainty. Constructive work is early presented that he may acquire dexterity and skill in the handling of simple tools and in the manipulation of a variety of materials. Constant opportunity is given for personal initiative and original solution.

Thruout the course, the work in design is related to that in construction, as it is believed that a knowledge of design—of what contributes to beauty in form and arrangement—should be knowledge for use. Thruout the course, emphasis should be laid upon the individuality of the pupil, upon his gain in power to think and to do for himself. The desire for results in the form of a perfect product should never blind the teacher to the importance of a sound comprehension by the pupil of both purpose and process. The stress should be laid upon the producer rather than upon the process or product.

* Introductory note.

The School Journal,

NEW YORK, CHICAGO, AND BOSTON.

WEEK ENDING OCTOBER 24, 1903.

How can anyone be pessimistic, or even dubious, as regards the educational attitude of teachers toward their work? A right sort of teacher will grow in heart and spirit, however difficult the work may be. System cannot crush the life, except it interfere directly with the usefulness of the teacher. Courses of study and syllabi have no discouragements if the requirements they establish are dictated by an enlightened interest in the educational development of the children. The editor rejoices in the receipt of a letter from a teacher in a large city school system, whose beautiful teacher spirit is evident from these words:

"After a most delightful summer I have gone back to school prepared to find all my theories as to what can't be done entirely false, and to make, what have hitherto seemed bare possibilities, accomplished facts.

"I have taught twenty years, normal children the first eight, and deaf children since, and in all that time there has never been a year in which I have not been able to accomplish more than in any previous year and to do it in a better way, and every set of children has always been a little more lovable than the last. Class by class they have differed a good deal in natural ability, but not much in affection and willingness to give of their best if it was wanted."

The New Hampshire State Teachers' Association held the most successful meeting of its history at Durham, October 16 and 17. President Whitcher had prepared a splendid program to commemorate the event, which was nothing less than the semi-centennial convention of the association. More than a thousand teachers were in attendance, of whom 850 enrolled as members—a gain of 200 over last year. The school exhibit was a unique feature, fully meriting the generous praise accorded it by the visitors. Pupils' work in all lines and from all grades was on exhibition, illustrating the state course of study, and showing some of the fruits of its first year's operation. Both country and city schools were represented, and the section meetings were centered upon discussion of the principles of work underlying the course. A fuller report of the meeting will have to be deferred until next week.

A somewhat remarkable innovation at the Massachusetts Institute of Technology this year is the new school for Doctors of Engineering. This degree, which has never before been given by an American institution, except *honoris causa*, will henceforth be given to students who have qualified themselves in any of the various departments of engineering research; and it is expected that the Eng.D. will henceforth take rank with the Ph.D. of the classical universities. No student will be graduated in this work who has not given proof of some actual contribution to the solution of a specific, industrial, commercial, or municipal problem. In other words, the Doctor of Engineering will be a man who has done special research work for the benefit of humanity.

An exceptionally efficient school principal lately said to her superintendent, "I don't mind fault-finding, but when people praise me it scares me." Yet the superintendent writes of her, that "she is able to live up to praise more easily than most people."

Not minding fault-finding must become second nature to a teacher who wishes to keep some sunshine in her school life. It's a pathetic thing. But there is no likelihood of any immediate change. It is well that teachers should not bathe in so much praise that it is expected as a matter of course. The meek schoolmaster, trembling at every word of criticism from the guardians of his flesh pots, has been preserved in literature. His counterpart of to-day is the irritable school-ma'am who cannot bear the slightest suggestion of disapproval.

Happy is the one who, conscious of imperfections, is willing to profit by criticism, tho the spirit in which it is given be not friendly. Cultivate imperturbable good nature. It's worth having in every station in life, especially in teaching. Don't let praise scare you. Take it and be thankful for it. If you are engaged in educational work you may be sure it would not have come to you if you had not well deserved it. You will not have to live up to any higher standard because of it. Just continue as you have done, doing the best you can, and more of the same praise will follow you.

The way of the reformer is hard, especially when he invades the scholastic domain. Mr. Cecil Reddie, the principal of the famous "New School" at Abbotsholme, is reaping his share of the whirlwind. As a matter of fact, England can derive more profitable lessons from a close study of the pedagogical virtues in the theory and practice of that great school than from a personally conducted commission making a flying trip thru the continent, or even America.

The English spirit prevailing at Abbotsholme lends to that institution superiority as an observatory station for students of what is best for English schools. Dr. Reddie has done a wonderful work in applying his original mind, thoroly trained in modern pedagogy, to the education of English boys. THE SCHOOL JOURNAL has several times referred to Abbotsholme. Is it because America is more alert in recognizing real merit than England that commissioners are now coming to visit us to discover what has made our people great?

The Department of Superintendence of the National Educational Association will meet at Atlanta February 23-25. The inducements offered for attendance promise to be exceptionally favorable to a grand rally. The Southeastern Passenger Association has just granted the unusual rate of one fare, plus twenty-five cents, for the round trip ticket. Parties are already forming, and the preparations at the convention city are well under way.

The series of composite studies of leading school men in America, planned for THE SCHOOL JOURNAL, will begin either next week or the week following. Unlooked-for difficulties in working into unity the various opinions expressed concerning characteristics of the subjects have caused slight delay. The sketch of William H. Maxwell will be the opening article. Superintendent Cooley, of Chicago, will be the subject of the second; Superintendent Soldan, of St. Louis, the third.

The question of lunch counters, referred to under New York city news, is a very complicated and difficult one, and has given rise to heated discussion in several of the larger schools thruout the country. An editorial article upon the subject may be looked for in THE SCHOOL JOURNAL for November 7.

The intention of the editor was to publish the New York city syllabus in drawing, beginning last week, but,

owing to an accident in having the illustrations engraved, readers will have to exercise patience one more week.

The condemnation of co-education by Dr. Dewarker, a member of the Syracuse school board, will call more attention to the question that has been raised as to its desirability. That women should be educated is, of course, a settled matter; whether they should be educated as men are, and with them, are two separate and unsettled questions. Dr. Dewarker refers in his book to the imitation of men by women, and points to a matter referred to in these columns, viz., the college "yell." In women's colleges, we regret to say, the idea of having a "yell" has been taken seriously.

The probability is that co-education will be considered with much argument in the coming ten years, and along with it the question as to the proper studies in women's colleges. Dr. Stanley Hall has taken strong ground against the former already, and there are many women, who have been educated on what may be termed the "standard lines," that are doubting whether something better could not have been done. While these questions may be discussed extensively by men we think the women who have been educated, as aforesaid, will be heard from and really decide the matter.

Recreation Centers.

In its recreation centers the New York board of education is doing a great work towards proving the value of the ideal of a school open from eight in the morning until ten at night. The work done in these centers is such as was formerly done by quasi-religious organizations and by all kinds of social movements. In 1899, the first evening recreation centers under the auspices of the board of education were started. Five were opened in the schools on the lower East Side, the densely populated portion of the city where the street was the playground. At the beginning, the attempt was simply to replace the street, and the first centers were originally playgrounds for recreation pure and simple.

The results of this experiment were good, and in 1900, ten evening recreation centers were opened, with gymnasium facilities and reading-rooms added. The number has since increased, until, in the present year, there are twenty-two, eighteen in Manhattan and four in Brooklyn.

Some of the twenty-two are for boys; some are for girls; one is mixed. In the crowded sections of the city they stand as illustrations to the other cities of the country of what can be done for the social and moral betterment of the youth of the slums by using the property of the city to its fullest capacity.

A visitor to the centers, if he should arrive at the school building before the opening hour, 7:30, would find the boys or girls, as the case may be, eagerly awaiting the opening of the doors. Exactly on the hour the doors are opened and they rush into a spacious, high, brightly-lighted playroom. About the floor are scattered small tables, each with two chairs beside it. These are for the games which are kept by a librarian who sits on a platform at one side of the room. Here, probably, within a half hour, more than five hundred young people will be engaged in playing familiar games or reading books.

In the boys' schools it is no uncommon sight to find boys playing games laid on the floor. Boys under fourteen are not admitted. They were admitted at first, but the older boys, whom it was especially desired to reach as they do not attend school, objected vigorously. As a matter of fact, anybody over fourteen is welcomed and the attendance is made up principally of boys and young men from fourteen to twenty. But it is no rare sight to find men of all ages peacefully reading in these centers.

The great majority of the boys are out of school, and, it is hoped, at work at something. Some come from stores and factories. Others are typewriters and stenog-

raphers, and some even are college students. Here they sit and read in a great din, for talking is allowed, altho all skylarking is forbidden.

Shut off from the playroom by folding doors is usually a gymnasium, perhaps the most valuable part of the work. For these youths, shut up in the shop or the factory, living in the crowded tenements, the corrective exercises of the gymnastic class are of the greatest service.

In the gymnasium there is no talking and hardly any noise, except that made by the handling of the gymnastic apparatus and the gymnasts' feet. A regular gymnastic drill is taught classes of thirty to forty boys. They thoroly enjoy this work and many of them would do only this if they were allowed.

But this cannot be. If they want to take the gymnasium drills they must join one of the center's athletic, literary, or debating clubs. The several clubs have their allotted time for the use of the gymnasium and of the smaller rooms where their literary exercises are carried out.

After the gymnasium work, it is likely that the members of a club will pass to the recitation-room in which the literary exercises are held. The club has a regular organization, with a president, a secretary, and a treasurer, and its affairs are conducted in the most approved manner prescribed by parliamentary law.

A teacher remains in the rooms during the meetings, not to instruct them in any way, but to help them if they need help, to start them right and make them do things as they should be done.

Other rooms in the building are used as study rooms. Here quiet reigns. Anybody may go to study and find a teacher at hand to make things clear that the pupil might not understand. There may be some who are still going to school and who come here that they may study in peace and quiet; there are more who are studying with a purpose, brushing up on their arithmetic to enable them to take a place in a store, or studying, to enable them to pass some civil service examination. And to the study-room come those who have drawn a book from the library and wish to read in a quiet place.

A recreation center for girls is also a most powerful instrument for good. Anything that will keep the children of a metropolis off the streets at night is a welcome power for the uplifting of the people.

Most of the girls in the recreation centers, as is the case with the boys, work during the daytime. Some of the younger ones may be still attending school, and some of the older ones may be attending a technical school, but most of the girls work in some way or other.

One will find cash girls or those who work in dress-making or millinery establishments, or feather factories, or sweat-shops, and, perhaps, typewriters and stenographers. The girls must be at least fourteen; most of them are about sixteen or seventeen.

The arrangements at the evening recreation centers for girls are substantially the same as those for boys. There are the same literary, debating, and athletic clubs. The girls take athletic exercises in classes, with an instructor. They have a variety of games to select from and facilities to play them; they have a library of books and literary clubs where they read, discuss, and criticise the books. At the end of the evenings they have dancing.

In some of the centers lectures are delivered once or twice weekly. At three centers there are taught Venetian iron work, carpentry, and basket making, as these occupations are taught in the summer schools.

The attendance at the evening recreation centers is large and constantly increasing. Those attending are intelligent and eager to improve, and they take an interest in what they do. Besides the enjoyment they get out of the recreation they find many things that are useful to them. And so, from being mere playgrounds, the centers have come to be places of real educative interest.

St. Louis Society of Pedagogy.

Officers and Members of the Executive Committee.

The following are the officers and members of the executive committee for the year 1903-1904.

Officers.

E. D. LUCKEY, President.
J. S. COLLINS, Vice-President.
I. J. SMITH, Treasurer.
CLARA F. JONES, Secretary.
PHILO S. STEVENSON, Official Reporter.

Executive Committee.

MARY J. BRADY. GERTRUDE M. HOGAN.
C. G. RATHMANN. R. H. COLE.
GEORGE PLATT KNOX. A. R. MORGAN.

Membership at Close of Last Year.

Number of membership tickets,	-	-	-	1,088
Number of complimentary tickets,	-	-	-	133
Number of honorary tickets,	-	-	-	52
Total membership,	-	-	-	1,273
Funds on hand June, 1903,	-	-	-	\$543.87

The St. Louis Society of Pedagogy resumed labor on Saturday last, October 17, 1903. This society is unique in its organization. It is supported by the voluntary membership fees from teachers and others interested in university extension work in St. Louis and neighborhood. The instruction is gratuitous and covers a broad list of subjects, including methods of teaching, natural science, language, literature, and art. In the course of evening lectures for the present school year, literature, pedagogy, statesmanship, sociology, and kindred topics will be presented by able lecturers.

In 1902-1903 the enrollment was eleven hundred. This year it is hoped that the membership will reach two thousand.

General Department.

The art section will be under the direction of an able leader, who will treat the World's Fair from an art view point. Architecture, sculpture, and painting will be presented by authorities in the separate lines.

Two well known members of the St. Louis high school have consented to take charge of the departments of English. "Some Readings from Milton" will be discussed under the leadership of Miss Jennie M. A. Jones. A thoro and systematic study will be made of the two books recommended by Supt. F. Louis Soldan: "Elements of English," by Percival Chubb; and "Teaching of English," by Carpenter, Baker, and Scott, with Mr. Wm. Schuyler as leader.

The French section will have a teacher from the Berlitz School of Languages. Señora L. M. de Cuenca, a native of Mexico, will have charge of the Spanish work. She has been commissioned by the Mexican government to study the St. Louis school system from the kindergarten to the university, and report upon the same to the secretary of instruction of Mexico.

Prin. R. L. Barton, of the Emerson school, will direct the discussions of Smith's "The Teaching of Elementary Mathematics."

Department of Methods.

It will be the aim of this section to present practical results of experience. The following subjects will be presented by selected leaders: 1. Supplementary Reading for information, with reference to history and geography; 2. Ethics; 3. Language; 4. History; 5. Geography; 6. Science; 7. Arithmetic.

The committee hope to have the section work close to school-room life and help meet actual needs. Suggestions and requests are earnestly solicited.

This section will be under the leadership of Prin. Charles M. Gill, assisted by Misses Hackstaff, Cunningham, and Brady.

Pedagogical Council.

This will be the third year's work for the council. During the first year leading educational papers and books were reviewed and discussed. Last year the dis-

cussions turned upon fundamentals in the ideal curriculum for the elementary school. The papers were prepared by members of the council and many took part in the discussions. During the great year of the Fair the council will devote itself to the study of the educational work of other cities and other lands. Present conditions of public education will be studied in the cities of New York, Boston, Washington, Chicago, and in the rural schools of Missouri. Other topics to be considered will be: Life at Oxford and Cambridge and something of the public schools of England, public education in France, university life in Germany, the public schools of Prussia, education in the Philippines.

These and similar subjects will be presented by men and women who have studied the subject on the ground. Free discussion will still be a feature of the work.

Prin. William Wade Walters, who has so ably conducted this department for the past two years, will again take charge.

Lesson of Financial Scandals.

Speaking of the lesson to be learned from the present financial scandals, the Right Rev. Frederick Dean Huntington said, recently:

"What is the lesson of all this? It is conceded that we are an educating nation and that the great masses seek this education. Such fiascos show very clearly, however, that our educational system is somehow very deficient.

"What we need is the education of the moral nature. The conscience of men is not trained in our public schools and great institutions. I say, give proportionate attention to the moral life of the student body of our great country.

"This body is taught everything else, from the classics to the trickeries and rascalities in business affairs. Men must be taught to discriminate between right and wrong, and, until that is done, we must expect scandals in public life."

English Girls' Education.

At the recent British association meeting considerable time was given in the section on educational science to the subject of what girls' schools should teach.

Miss Burstall, of the Headmistresses' association, said that up to ten years of age half the school time for girls should be devoted to manual and physical training; after twelve, a literary education should predominate. If the higher emotional nature of girls was not trained at school they would not be fit for their duties at home, and no instrument for such training had been found equal to literary studies. When a foreign language was taken in the last year of the primary school course it should be French instead of Latin or German. Apart from its practical uses French was valuable in the sense of contrast, which it afforded to the English mind, in being rich in elements of civilization which were not English. Between the years of twelve and eighteen one-third of a girl's time should be given to science and mathematics, one-third to languages, and one-third to English humanities.

Miss Maitland, of Somerville college, said that if men had in the past consulted women about the education of girls many of the present evils would have been avoided. It was not true to say that women tried to do only what men were doing and to have what men had.

Women in the Colleges.

In an article on "Women's Colleges and Their Executives" in the *Booklover's Magazine* Miss Jane A. Stewart presents some important data. "There are now," she writes, "more than four hundred and fifty colleges and universities in the United States which are offering to women opportunities for higher culture and professional training. In the eleven higher educational institutions for women only, which fulfill the true college standard in entrance requirements, training of faculty and curriculum, there are now enrolled 5,152 students and a

teaching force with university attainments numbering 502. The total number of women college students is estimated at forty thousand.

"The increase of women in professional schools has been particularly marked during the last fifteen years. According to the figures of President Thomas, of Bryn Mawr, the gain in numbers of students in medicine from 1890 to 1898 was fifty-one per cent. of men and sixty-four per cent. of women; in dentistry, 150 per cent. of men and 205 per cent. of women; in pharmacy, 25 per cent. of men and 190 per cent. of women; in technology and agriculture, 119 per cent. of men and 194 per cent. of women.

"There are three distinct types of institutions for the higher education of women in the United States.

"First, there is the independent college for women only. Second, there is the compromise type, which is attached to a men's college as an 'annex.' Third, we have the co-educational type, which has now spread thruout the country.

"The privately endowed institutions exclusively for women are well equipped materially, and the endowments of the principal colleges are growing rapidly. Three of them—Bryn Mawr, Smith, and Vassar—are included among the fifty-two colleges of the United States having vested funds of more than \$500,000, and two—Vassar and Bryn Mawr—are listed among the twenty-nine colleges possessing productive funds of \$1,000,000 and over. The total value of the property and endowment, as given for last year, is: Vassar, \$2,611,150; Bryn Mawr, \$2,000,000; Wellesley, \$1,500,000, and Mount Holyoke, \$1,400,000. If numbers were a gauge of worth Smith would be ranked first, for it has an enrollment of 1,048 students. Wellesley is next, with 889; Vassar, 860; Mount Holyoke, 675, and Bryn Mawr, 426."

Times change. The attitude of the people of the entire country is favorable to public education. The Democratic party of New York city arraigns the Fusion party (composed of Republicans and Democrats), which has been in power for nearly two years, for not doing more for the public schools, chiefly for not erecting more buildings.

In 1879 Governor Robinson in his message to the legislature said of the plan of establishing high schools: "To levy taxes to educate the few who desire and are capable of a still higher (than a common school education) is a species of legalized robbery. It breeds discontent on those who are educated for something above that for which they are educated. . . . These views are so manifestly just that I have no doubt they will ultimately prevail." (! ! !)

Governor Robinson was also opposed to the normal schools; in the same message he says: "So far as I can learn the normal schools established in various parts of the state are, with two or three exceptions, wholly useless and fail almost entirely to accomplish the objects for which they were established. (! ! !)

In commenting on these views THE SCHOOL JOURNAL remarked that the public school system was defective but that "the people of the state are in favor of it nine to one." We may make a still stronger assertion after the lapse of a quarter of a century that they are wholly in favor of (1) spending all the money the schools need; (2) wholly in favor of the normal schools; (3) wholly in favor of high schools.

In that year the total expenditure of the state for school purposes was ten million dollars; New York city alone spends eighteen million dollars this year.

We think the public feel that the way out of the perils that surround us will come thru education, and by that we mean a free high school education for all who may desire it.

Is it not becoming a conclusion that the state should offer a free college education to all who desire it? We think this is the conclusion with which the American people start at the beginning of the new century.

Letters.

It is Appreciated.

It is pleasant for us of New York city, and who have watched the enlightened course of THE JOURNAL to find it constantly moving on to higher ground. The tendency of the profession is to feel that progress is impossible, because we go a certain round each year, and we go over the same the next. But I feel that I go my round with different thoughts than I did ten years ago.

The changes made in the course of study, the more enlightened inspection and the infusion of an "educational state of mind" all conspire to make this a new year to us who are teachers. For the last especially we have to thank THE JOURNAL.

We appreciate the effort to give us a view of what is being done elsewhere. I for one like to know what is going on in Boston and New England. Sometimes it seems to us that Chicago is surpassing us; in fact few understand what the great West is doing. I could not understand it until I paid it a visit. There I saw that it had a devotion to public education that surpassed ours.

New York.

W. F. KINGMAN.

The Teacher Does Read.

Since you publish my letters written from various points I venture to send another. As I meet with teachers in very many different states I can see that there is a decided advancement. For instance, several years ago I was in a town in Maryland and saw a principal who plainly told me he did not believe in all this talk about progress. He wanted no supplementary readers; he made them just stand up, toe the mark, "and spell in the good old-fashioned way," etc., etc.

His remarks were applauded by a number of the school board present, and I saw it was useless for me to spend my time there. But a change has taken place. A new building has been erected; a new man is in it, and I find on each teacher's desk books by your firm and that of Flanagan. The question is concerning more light—they are not satisfied yet; and the school board contains new men. I find a welcome and teachers and school are glad to see me.

The principal purchased several books to add to the school library; he inquired as to Professor Munson's work on "Nature Study." This subject is attracting much attention. Meetings of the teachers are held weekly, and once a month they have a public meeting with an address from some educator or clergyman. This last has done a great deal. Principal — says, "Let the light in." He wants the schools to be visited; he assures me that the teachers are becoming aroused to the need of a broader prospect.

F. L. P.

Washington.

Sleepy Hollow Church.

The readers of THE JOURNAL will be interested in the fact that the old Dutch church of Sleepy Hollow held its last service on Oct. 18 and it is now to be torn down. I well remember the mention in THE JOURNAL, when first a reader, of a pilgrimage to the scene of the midnight ride by Ichabod Crane. That must have been in the late 70's or early 80's, for no interest then existed in the study of literature.

A suggestion in THE JOURNAL that pupils be interested in literature in those days would have excited no comment, for it would have been thought impossible. "No time" would have been the reply. How is it we have time now? I, for one, think teaching is done more skilfully then it once was.

During the past ten years Sleepy Hollow has been visited by thousands; last year by a large company from the Teachers college. Thus did Irving immortalize this section of his country.

A. VAN WYCK.

Tarrytown.

Catarrh, an excessive secretion from an inflamed mucous membrane, is radically and permanently by Hood's Sarsaparilla.

Notes of New Books.

The Primary Public School Arithmetic, based on McLellan and Dewey's "Psychology of Number," by J. A. McLellan, A. M., LL.D. and A. F. Ames, A. B.—This book is strictly introductory to "The Public School Arithmetic," and forms with it a complete course. The authors have recognized the fact that when the child enters school the number sense is alert; in fact, the child is in the counting stage of development. Upon the principle "strike while the iron is hot," this counting power should at once be used for further growth by applying it to more definite measurements. Recognizing that number is the "tool of measurement," the authors have endeavored, by a careful grading and an unusual variety of concrete and constructive exercises, to develop true ideas of number and numerical operations, as well as trained intelligence and ability to apply what has been learned to the varying problems of social life. There are two extreme views regarding the nature of number leading to two quite different pedagogical methods; one of these "No ratio in number;" the other, "No number in ratio." This book following as it does "The Psychology of Number" avoids both extremes. (The Macmillan Co., New York. Price, \$0.30.)

Elementary Algebra, Part I, by Chintarnani Mukerjee, B. A.—The introduction to this little book shows very clearly the relation between arithmetic and algebra, a conception that many pupils fail ever to secure. The simple processes are treated in about the usual way. Following these, equations of the first degree are given a very full treatment, and to the usual method of elimination a fourth by detached coefficients is added. Factoring and the uses of the various forms of factors are left until after the student has solved a sufficient number of problems to secure a good mastery of algebraic processes. A chapter is given upon symmetry and cyclic order, a topic commonly omitted entirely by the American pupil, and one which it would often be to his advantage to understand. Answers to the various problems, and hints as to the solution of such as are likely to be too perplexing for the beginner, are placed at the end of the book. (The Indian Press, Allahabad.)

Clays of New York, Their Properties and Uses, by Heinrich Ries, Ph. D., being No. 35, Vol. 7, of the Bulletins of the New York State museum, Frederick J. H. Merrill, Director.—Clay finds two prominent uses according to its purity and the tenacity of the burned product, porcelain of the various kinds from the cheapest pottery to the most expensive, and building brick. These broad uses render clay one of the most valuable mineral deposits, and a state is rich if clays of varying qualities are deposited generally throughout its area. This is the condition of New York. The state authorities have made a very extended examination of the clay deposits, and this large and beautiful volume, finely illustrated and carrying a map with the various deposits clearly indicated, is the result. The qualities of the several deposits are given very fully, and the uses to which they may be profitably put are carefully shown. The processes employed are described in minutest detail, and the peculiar qualities of the products are carefully explained. The clays of the state are also compared with those of other regions.

In these days of so-called fireproof buildings, hollow and porous brick become a necessity. Certain New York clays are well adapted for such brick. The process of making these and their most desirable forms are illustrated, and a

photograph of one of the most successful machines for molding them is reproduced. The whole work is done with the usual painstaking of government surveys. (University of the State of New York, Albany.)

Character Reading, by Mrs. Symes, shows how to tell the character of people by the color of the eyes and the shape of the head and features. We are all doing this unconsciously, more or less; it is desirable to make a systematic study of the art, as one may by the use of this volume. (The Saalfield Publishing Company, Akron, Ohio. Price, \$0.50.)

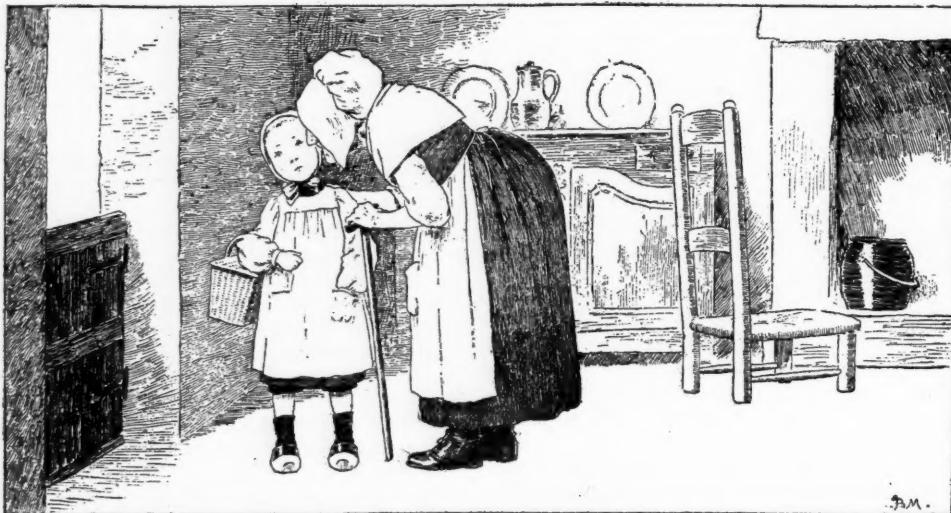
Home Arts and Crafts is the title of a very complete work on this interesting branch of industry, edited and compiled by Montague Marks. In the old days, before the invention of labor saving machinery, the home was the center of industries, many of which have entirely disappeared. Altho the world gained much in one direction by machinery, it lost much in another, by the change. This fact is beginning to be realized, so there is now a revival of many home industries. This book treats of a great variety, as follows: modeling in clay, modeling in gesso, wood carving, fret sawing, poker work, pyrogravure, leather decoration, saw-piercing, etching on metal, metal hammering, bent-iron work, applied design, ornament, wall paper designing, textile designing, damaged china restoring, grangerising, taxidermy, etc. The book contains full directions as to tools and materials and their uses, so that a novice might take up the work in a chosen branch and attain to a fair degree of success. There are over 150 large pages and the matter is fully and beautifully illustrated. (J. B. Lippincott & Co., Philadelphia.)

Literary Leaders of America, by Richard Burton, Ph. D., is a book from which one can get an idea of the personality and writings of those who have left works of permanent worth. The high lights only are emphasized. To get a bird's eye view this is necessary. A chapter is devoted to the writers of the early period, many of whom have only a historical interest, and then the author concentrates his attention on a few great writers. These are: Irving, Cooper, Poe, Hawthorne, Emerson, Bryant, Longfellow, Holmes, Whittier, Lowell, Whitman, and Lanier. He closes with a chapter on present-day writers. The book is delightful reading and we are sure it will be a profitable one for study. (The Chautauqua Press.)

Teaching Truth, by Mary Wood-Allen, is a little book that explains the process of procreation by means of botany and natural history. It permits no shadow of deception to rest on the subject. The style is chaste and forcible. The knowledge thus attained is a sure safeguard against downward tendencies. Ignorance often entails life-long suffering; hence the value of this little book that tells how to instruct children properly at the right time. (Wood-Allen Publishing Co, Ann Arbor, Mich. Price, \$0.50.)

The ability of Rosa Nouchette Carey to write a good story is again demonstrated in her latest book, *A Passage Perilous*. It is the story of a girl who fell in love with her husband, and the dangers she passed thru before she found that the man whom she had left at the church door carried away with him her heart. The characters deport themselves naturally and sensibly. In fact, it is a story one can thoroly enjoy. (J. B. Lippincott Co., Philadelphia. Price, \$1.50.)

A Child's Letters to Her Husband is the odd title of a little book by Helen Watterson Moody. It is hardly necessary to say that it is very entertaining. This young Miss, whose name is Virginia thinks it "very inconvenient not to



Off to School.—M. B. de Monvel.

be acquainted with the person you are writing to," yet she happened to think "she must have a husband somewhere," and so she proceeds to write to this creature of the imagination. The vivid imagination of the child makes him real, and for the purpose of the correspondence he answers the same purpose as tho he were real. She tells of her childish experiences in her quaint and artless way, and in doing so hits the weaknesses and peculiarities of older people oftener than she thinks. The book is marked by delicate humor and feeling. (Doubleday, Page & Co., New York.)

¶ *The Presbyterians* is one of the books in the Story of the Churches series, whose design is to furnish a uniform set of church histories, brief but complete, and designed to instruct the average church members in the origin, development, and history of the various denominations. This volume was written by Charles Lemuel Thompson, D. D., secretary of the Board of Home Missions of the Presbyterian church in the United States of America. Altho there were already many histories of the Presbyterian church in this country, it was thought there was still room for one which would put the story into a few brief chapters presenting only the main outline of events and giving them a popular rather than an ecclesiastical setting. This is therefore a record of the life and work of the church given in its most essential features. It recounts, in brief space, the Presbyterians' struggles, trials, and triumphs. Special attention is called to the similarity between the government of the United States and that of the Presbyterian church. This is no accident as the student of constitutional government will find. (The Baker & Taylor Company, New York. Price, \$1.00.)

English Language and Literature.

Select Translations from Old English Poetry. Edited with prefatory notes and indexes by Albert S. Cook, professor of the English language and literature in Yale university, and Chauncey B. Tucker, Foote fellow in English in Yale university.—Our students of English generally have a very vague notion of English literature prior to Chaucer, gleaned from some elementary historical account. The editors of the present book make it possible for students to get an adequate idea of the work themselves, after all the only satisfactory way of studying literature. They have made an unusually good selection of the best and most representative poems of this era and have edited them in a scholarly and intelligible way. High schools of the best type will speedily introduce this book for their senior English classes with excellent results. An index of subjects properly forms a part of the book. (Ginn & Company, Boston.)

¶ *English Grammar and Composition for Public Schools*, by G. H. Armstrong, M. A., B. Paed, principal Borden street school, Toronto.—The author proceeds upon the inductive principle, giving models from which he abstracts his definitions. One of the soundest parts of the book is the chapter on composition. The most important principles are tersely stated, special care being taken not to introduce the pupil to anything that is too technical. In this part the models are unusually well chosen. (The Hunter, Rose Company, Toronto.)

Principles of English Grammar, With Suggestions on Method, for use in high schools, seminaries, and normal schools. By J. N. Patrick, A.M.—The fact that so few of our high school pupils can thoroly enjoy a piece of literature which contains long sentences which are perfectly clear in construction indicates beyond a doubt that our grammatical training is at fault. The author lays stress upon the fact that formal grammar, as a rule, is beyond the comprehension of the pupil below the high school. Too often the pupil in the high school receives little instruction in foreign languages, and this instruction almost invariably does not concern itself about English parallels. Consequently such a book as the present one will appeal to the intelligent teacher. Mr. Patrick lays proper stress upon the proper application and deduction of grammatical principles. A large number of hints to teachers are interspersed in the texts. (J. B. Lipincott Company, Philadelphia.)

Keats' The Eve of St. Agnes and other Poems. Edited with introduction and notes by Katharine Lee Bates, professor of English literature in Wellesley college.—Together with explanatory notes, Miss Bates has edited *The Eve of St. Agnes*, *The Eve of St. Mark*, *Hyperion*, and a number of Keats' shorter poems. In an introduction, the life of the poet is briefly reviewed, stress being laid upon the fact that his life had its compensation as well as its overwhelming tragedy. A chapter of appreciations contains tributes by Shelley, Holmes, Landor, Aldrich, Lanier, E. B. Browning, Ruskin, Watson, Rossetti, Longfellow, Gilder, and Lowell. (Silver, Burdett & Company, New York.)

Shelley's Adonais and Alastor. Edited with introduction and notes by Chas. G. D. Roberts, M.A.—It is highly fitting that Shelley's two masterly poems should be made more accessible for school purposes. This the editor has done in a most satisfactory way. The introduction is unusually clear

and scholarly. It gives a brief account of Shelley's life and lays particular stress upon those features which are essential to a clear understanding of his works. The discussion of the development of the pastoral elegy from Binn and Moschus down to Swinburne is of particular value and is an object lesson of what ought to be done far more generally in English text editions. The chronological table will help the student to a clear survey of the period in question. (Silver, Burdett & Company, New York.)

Lord Chesterfield's Letters to His Son. Selected and edited with introduction and notes by Joseph B. Seabury.—Chesterfield's letters to his son have been recognized as masterpieces so long, that the editor needs to seek no further justification in bringing them out in a school edition. In spite of the occasional lack of manliness on the part of Chesterfield, the letters are most wholesome, and in addition to being read in classes, the letters should be read to pupils by the teachers. The editor has added such explanatory notes as are essential to a clear understanding of the letters and in an introduction gives the necessary biographical and critical information. (Silver, Burdett & Company, New York.)

Judith, Phoenix, and Other Anglo-Saxon Poems. Translated from the *Grun Wulkes* text by J. Leslie Hall, Ph.D., professor of the English language and literature in the College of William and Mary.—Professor Hall, who in '92 published a translation of *Beowulf* which was well received, in the present volume gives a number of translations from the Anglo-Saxon, which will be appreciated highly by thoughtful students of English literature. The volume contains *Judith*, *Phoenix*, *Battle of Malden*, *Battle of Brunanburh*, and *Andreas*. Each selection is introduced by an explanatory statement concerning the authorship and other interesting matter. Footnotes render valuable assistance in interpretation. (Silver, Burdett & Company, New York.)

William Tell. Translated and adapted to school use from Schiller's Drama, by Chas. A. McMurry, Ph.D., of the State Normal school, De Kalb, Illinois.—It is very apparent that our college students are, as a rule, very deficient in the interpretation of the drama. This, no doubt, is due in part to the little attention paid to this form of literature in the lower grades. *Tell* is particularly adapted to the needs of younger pupils, since it is simple in structure and interesting thruout. The successful teaching of *Tell* in the schools of Germany suggests, in a manner, what might be accomplished in America. The Germans go so far as to give free performances of *Tell* and other national dramas for school children, thus training them in the appreciation of one of the loftiest arts. Our own negligence has led to the low ideals which obtain on the American stage. Dr. McMurry's translation is very readable. The book is well printed and illustrated. (Silver, Burdett & Company, New York.)

Selections from English Poets, arranged and edited, with introduction and notes by J. J. Burns, A. M., Ph. D., contains the best known poems of that early nineteenth century group of bards, Byron, Wordsworth, Shelley, Coleridge, and Keats. Where among the world's great literatures can one find five poets that have written better things than these? We Anglo Saxons have a right to be proud of the men who wrote such poems as "Childe Harold," "The Ancient Mariner," "Adonais," "The Cloud," "The Skylark," "The Ode on Immortality," and the odes "On a Grecian Urn," "To a Nightingale," and "To Autumn." These and other poems are given in this volume, together with many helpful notes. They are poems with which everybody should be acquainted. (Ainsworth & Company, Chicago.)

Busy Doctor

Sometimes Overlooks a Point.

The physician is such a busy man that he sometimes overlooks a valuable point to which his attention may be called by an intelligent patient who is a thinker.

"About a year ago my attention was called to Grape-Nuts by one of my patients," says a physician of Cincinnati.

"At the time my own health was bad and I was pretty well run down, but I saw in a minute that the theories behind Grape-Nuts were perfect and if the food was all that was claimed for it it was a perfect food, so I commenced to use Grape-Nuts with warm milk twice a day and in a short time began to improve in every way and I am now much stronger, feel 50% better and weigh more than I ever did in my life.

"I know that all of this good is due to Grape-Nuts and I am firmly convinced that the claims made for the food are true. I have recommended and still recommend the food to a great many of my patients with splendid results and in some cases the improvement of patients on this fine food has been wonderful.

"As a brain and nerve food, in fact as a general food, Grape-Nuts stands alone." Name given by Postum Co., Battle Creek, Mich.

Look in each package for a copy of the famous little book "The Road to Wellville."

The Educational Outlook.

In his annual report, the minister of education in Japan has recommended the Bible as one of the best books for students of English to read.

The report shows that at the end of last year there were in Japan ninety-seven agricultural schools, six fishery schools, twenty-eight technical schools, fifty commercial schools, seven mercantile schools, and sixty-two industrial institutions.

The Mercantile Club, of Kansas City, Kan., has adopted a resolution authorizing the securing of signatures to a petition for a grand jury to investigate alleged boodling on the part of certain members of the school board. The action was taken after a committee appointed to investigate the scandal had submitted its report.

The report includes a written statement from one teacher that he was asked to pay \$300 for the position of principal of the high school, with the understanding that the salary was to be raised from \$1,500 to \$1,600 a year.

A site for the Bancroft school was purchased at \$4,000, when the owner was willing to sell for \$2,350. An agent of the school board secured an option and sold it to the board at the advanced price.

Curiously enough all the teachers in the school of agriculture at Lima, Peru, are Belgians.

President Schurman, of Cornell university, has no fear that football and athletics will displace serious study, for he has publicly urged his students to try for the teams. At a recent mass meeting of the students he expressed a wish that every young man might become a candidate for the football eleven. He declared it would be a good thing for the young man and for the university.

Prof. A. Ross Hill, since 1897 head of the department of philosophy of the University of Nebraska, has resigned. He is now professor of education at the University of Missouri, where, after this year, he will be dean of a teachers' college which he is to organize.

Ex-President White, of Cornell university, has presented Sage chapel of that institution a new mosaic window. The window is triple in form and contains the figures of Fenelon, Melancthon, and Thomas Arnold.

¶Prin. W. M. Hallman, of Charles M. Schwab's industrial school at Homestead, Pa., has outlined Mr. Schwab's plans with reference to establishing industrial training schools in Illinois, Indiana, and Ohio. Any city raising a specified amount will be endowed with a sum of money, depending on the population, sufficient to erect proper buildings and give the institution a prosperous start.

H. Melville Hanna, of Cleveland, Ohio, has given \$100,000 to the Western Reserve university. The income of this sum is to be devoted to the promotion of instruction and research in anatomy and kindred subjects. The department thus endowed is to be named the Henry Wilson Payne department of anatomy.

The board of education at Orange City, Ia., has raised a storm of protest in the district by ordering the pictures of Presidents McKinley and Roosevelt be removed from the walls of public school buildings. The theory upon which the board justifies its course is that the pictures create a partisan spirit.

Prof. C. P. Gillett, entomologist at the Colorado agricultural college, has been appointed chief entomologist of the St. Louis exposition.

The department of archeology at the University of California has made an appeal to all residents of the state to aid it in making a thoro archeological and ethnographical study of California.

Research by professors and special students has shown that many caves are full of valuable specimens of old Indian life, and recent study has opened an attractive field in the Indian languages of California, which are more numerous than in any other part of the country. Many of these languages are spoken by only half a dozen remaining members of a tribe, and the aim of the university will be to have experts reduce these languages to writing, so that they may be preserved for comparative study.

The Cleveland board of education has been doing considerable towards caring for the eyesight of the children by improving the lighting in the school-rooms. In five school buildings new windows have been cut to increase the volume of light. Light blue and buff window shades have been introduced in accordance with the advice of city physicians. Eight rooms have been retinted and a large number of others have been rearranged so as to bring the light on the left side of the pupil.

A recent German Lutheran conference in Illinois passed a set of resolutions denouncing the public schools. They declared that in the public schools a positive impression is made upon the children that no religion is necessary, and that the generation now growing up will ruin the state. The object of the public schools, they held, was to make educated men but not Christians. The parochial schools were said to be best because of their opposite policy.

One of the first fatalities of the season from football is reported from Lake Forest, Ill., academy. Gustave J. Becker, a sixteen-year-old student at the academy, had his back broken while playing a game, and died on October 7.

The Bay View Reading Club now numbers a thousand local organizations and over 12,000 members drawn from every state and some foreign countries. The originator of the organization was John M. Hall, who is still in charge of the work, aided by several trained assistants. The courses are arranged to offer an intelligent plan for home study. The courses are brief, simple in plan, and comparatively inexpensive. This fall the club begins the study of Germany, Belgium, and Denmark, covering the history, literature, art, and music of each. Circulars giving general information can be obtained by addressing John M. Hall, 165 Boston boulevard, Detroit, Mich.

Higher Education Notes.

On the large platform of the Washburn college, Topeka, Kan., chapel, in front of an audience of 500 persons, an exciting fight took place between the freshman and the sophomore classes. Thirty-five sophomore girls tried to "rush" forty freshman girls off the platform.

Tables and chairs were overturned, the president's chair was smashed to bits, clothes were torn, hats were lost, and eyes blackened in the rough-and-tumble fight. It was at least twenty minutes before the faculty could separate the two classes and restore a semblance of order.

Buchtel, Ohio, college has been the scene of some lively rioting between the lower classes. As the result of "color rush" after chapel the faculty has suspended every man in both lower classes except three, and they remain because they did not reach college until after the rush was over.

In a cane rush between the freshmen and sophomores of Tu'ane university, Loeb Landau, a freshman, was killed. His skull was fractured.

Mistakes in Child Study.

Dr. G. Stanley Hall, of Clark university, has recently remarked that even the great good child study has done and the greater good to be expected from it have been so far outweighed by some positive harm. It has often led to interference with nature. Children have been practiced upon to an extent which has sometimes jeopardized their mental, physical, and even moral health and growth, and made education a kind of meddling interference with nature. Dr. Hall is quoted as deprecating "idiotic busy work in the lower grades, learning to read without knowing the alphabet, typewriting and shorthand in the high school, four foreign languages for girls and boys in the early teens who have almost nothing in their minds to express in the vernacular, Latin and algebra in the grammar school, wood and iron work in manual training courses that are wooden in their intelligence and iron in their inflexibility."

Conditions in Beaufort County.

Comparatively few people really understand the conditions in the South which make educational work so necessary and often so difficult. Beaufort county, S. C., is not typical, for the conditions there are good for a "negro" county, but in many ways it shows the conditions.

Ninety per cent. of the population are negroes. Most of them are contented, docile, thriftless, poverty-stricken, ignorant, and immoral. They simply drift along. Twenty years has seen little change in their condition, and vigorous outside influences will be necessary to make much in the next twenty.

According to the last census there are 3,349 whites and 32,137 negroes. Most of the whites, however, are in two or three towns. The schools are interesting as a study of conditions. There are 3,553 negro pupils in sixty-five schools with an average attendance of about forty pupils to a teacher. The average length of a school term in the country is three months.

The pay of the country teacher is \$25; of the town teacher \$30 per month. The country school-houses are miserable frame or log buildings with neither sashes, desks, nor blackboards, and often heated only by fireplaces. Most of the teachers are incompetent, hence the little instruction given is apt to be erroneous, yet it is usually looked upon as an accomplishment to be aired. There seems to be no outlook for any improvement from within. All impulse must come from outside influence.

Lima Schools Open.

The school at Lima, N. Y., over which there has been so much controversy regarding the employment of nuns as teachers, has opened. The state employee sent to Lima by Superintendent Skinner, broke into the school and rang the bell for a session after the keys had been refused him. He was arrested, but was later discharged.

Superintendent Skinner then designated Thomas T. Killip as principal and Miss Emma Foster as assistant, and they opened the school. They will occupy their positions until Trustee Hendrick announces his intention to abide by the instructions of the state superintendent. The school board and Trustee Hendrick, at the present writing, are still rebellious. Meanwhile taxpayers are wondering who will pay the bills.

The Greater New York.

On October 12, a dinner was tendered Miss Julia Richman, former principal of the primary department of P. S. No. 77, in honor of her promotion to the position of district superintendent. The affair was unique in that the guests were limited to those public school principals who had gained their experience as teachers under Miss Richman.

Pier 3, East river, is to be converted into a school-house, the contract being already let. The stipulation is that the pier be inclosed and made ready for occupancy within twelve days. In order to accomplish this it will be necessary for the contractor to work a full force of men both day and night.

The board of superintendents has nominated the following persons as principals in the schools indicated: Adeline E. R. Anderson, P. S. No. 114; Mary A. Crothers, P. S. No. 37; Eliza A. R. Sullivan, P. S. No. 106; Mary H. Tompkins, P. S. No. 77, and Mrs. Perham, P. S. No. 192.

These women were placed at the top of the eligible list as a result of the so-called Goldey decision. They were not nominated until the by-law committee held that the appointments must be made. Pending this decision, no women were appointed from the list, and the number of vacant principalships has steadily increased. By appointing these teachers now, and retiring them after short service, the board will be able to clear the eligible list of those who were placed thereon by the Goldey decision.

Columbia university is to give an extension course in architecture this year for the first time. The course will consist of thirty lectures on the history of the Renaissance and modern architecture, and will be given by Prof. A. D. F. Hamlin.

Teachers college has announced the award of two scholarships, founded by a group of New York people for students of the Tuskegee Normal and Industrial institute. The present holders have been teaching at Tuskegee, and after pursuing the courses at Teachers college will return to their work.

Dean Russell, of Teachers college, has announced that thru various gifts and pledges to the institution nearly \$180,000 have been raised toward meeting the conditions of John D. Rockefeller's contribution of \$500,000. As soon as the existing debt of \$190,000 is paid, Mr. Rockefeller will give \$250,000 for the endowment fund. For the period of two years from the date of this gift, if made, he will duplicate dollar for dollar all contributions made in cash by others towards endowment, up to a total of \$250,000.

Control of Lunch Counters.

The committee on the care of buildings and the high school committee have had a slight controversy over the control of the high school lunch counters. The proprietors of the counters were called before the by-law committee, and this committee decided, after a hearing, to recommend to the board of education the adoption of a by-law placing the control of the lunch counters in the hands of the high school committee, or a continuance of the present system.

The committee on the care of buildings held that, under the by-laws of the board, the control of the counters should be in their hands. Complaints have been made that at times the proprietors of the lunches have failed to clean up after them, leaving that work to be done by janitors. It was also contended that the privilege should be paid for, or else the

prices should be made more moderate.

The principals insisted that the supervision of lunch counters should be in their hands as at present.

Plans of Teachers' Association.

In his annual address to the members of the New York City Teachers' Association President Magnus Gross stated the plans of the teachers. After thanking the members for electing him a third time, Mr. Gross said in part: "Among the new features introduced into the work of the association special attention is called to our university extension course, which was successfully launched last term. This institution has been regularly chartered by the regents, and its work receives the same recognition as similar work in formal institutions of learning. Most of its diplomas furnish exemptions from certain subjects in examinations held by the board of examiners."

"It is this practical and beneficial aim of our young university which should commend it to all earnest teachers. For whatever tends to minimize the lottery and uncertainty of examinations should receive the hearty support of the great body of the teaching force, who believe that the formal evidence of a course of reading and thoughtful study under a competent and inspiring instructor is the most trustworthy guarantee of scholarship and pedagogic fitness."

"It is the earnest hope of the founders of this new institution that it may, in the course of time, become a great pedagogic university, lodged in a building of its own, and controlled and supported by teachers."

"Among the more important matters that will call for action by the association this winter are the three-mill tax for the general fund, pension legislation, and the question of licenses. The three-mill tax having proven inadequate, it will be necessary to ask the legislature for a readjustment of the tax for the salary fund. The need of providing for these faithful but unfortunate teachers who break down before the period of retirement, makes it a matter of duty to urge the enactment of a graduated pension law."

"The feeling among a large number of teachers upon the question of licenses has become so bitter that it has given rise to demands for legislative action to remodel the licensing system."

"This is, no doubt, justified in the minds of those able and experienced teachers who have suffered injustice by the actual or virtual invalidation of the older forms of license held by them. A recent decision of the courts, and a pending one, may materially modify the official view of the validity of former licenses. It is unwise, however, to obtain legislative action till other remedies have failed."

"That the legislature has never turned a deaf ear to our appeal when we were strongly united in a good cause is a fact which no doubt suggested the plan to establish active co-operation of the teachers' associations of the five boroughs in all matters of common interest. Under a resolution of the board of directors and delegates last June representative principals and teachers have been selected from each school district of Manhattan and Bronx. These will meet similar representatives from the other boroughs whenever necessary to discuss and plan concerted action upon matters in which the teachers of all the boroughs have a common interest."

"There are so many interests in our schools which are peculiarly the children's, and which cannot be dissociated from the work of the thoughtful and sympathetic teacher, that a new and impor-

tant committee, that of children's interest, has been created by action of the association. Miss Alida S. Williams, of P. S. No. 33, is chairman of this committee."

"The committee of One Hundred will continue its good work of agitating for a teachers' club-house. So far, about \$30,000 is in sight. The committee has under consideration two propositions from prominent builders who have offered to build a club-house on a long term contract or on a rental basis. There are, however, many difficulties in the way of accepting either proposition without material modification. The committee earnestly hopes that the teachers of this city will not be behind the teachers of other cities who are building club-houses. The trend of events in social and educational movements makes it daily more evident that an institution of this kind would enable the teachers of New York to exert a powerful influence for good in every phase of civic life with which our profession is brought in contact."

The Public Library.

The director of the New York public library has presented some interesting facts concerning the work done during the past year. Among the gifts was a collection of some 800 volumes and pamphlets relating to the history of British India, received from the office of the secretary of state of the Indian empire. There was also a collection received of fifty-six volumes and pamphlets from the Congo Free State, some of them in native languages.

The readers and visitors who have visited the two reference libraries numbered 167,673, the Astor library receiving 115,114 and the Lenox 54,559.

The volumes received on the accession catalog number 31,325-16,632 purchases and 14,643 gifts. Cataloged during the year were 52,330 volumes and 35,983 pamphlets. In the document department 10,721 documents of public affairs were received.

Mosely Commission Dined.

On Oct. 12 President Butler, of Columbia university, gave a banquet to the Mosely educational commission. The guests included the presidents or members of the faculties of nearly all the prominent universities, presidents of boards of education, sociologists and educators from a number of American cities.

Mr. Mosely, the head of the commission, told of his efforts to get together a body of the representative educational experts of England, to observe the conditions and methods adopted in America.

"I do know, already something of the results of your system, whatever that system may be," he said, "and I think that aside from your great natural resources, what has done more than anything else to bring this country to its present greatness is the thoroly sound education that you have given the masses."

William Jones, member of Parliament from the Arfon division of Carnarvon, said: "We want to know when you begin your educational specialization. We also want to know something of the training of your teachers, for the teacher is the soul of the school. We want to know how you are going to bring culture to bear upon your political and industrial forces."

President Hadley, of Yale, said that the two nations differed much in specialized education, but that in imparting education on its broad lines, the education that makes men as against the education that makes specialists, there was the same hesitation in describing here as in England.

Dr. Felix Adler spoke of the "impractical system" of the English schools and said he believed that despite its apparent impracticality, American educators have much to learn from England. "Idealism is the mother of utility," he said, and he urged the value of manual training combined with a literary and scientific training.

"Of what avail is it?" he asked, "to enhance the excellence of technical methods, if hatred and disgust continue to grow between the classes? We do not claim that education is everything. Personality is the chief factor to be incorporated. The private schools are counting for less every year and the public schools are becoming, as they should, the common schools. There, all classes come into touch with each other. It is the great feature of our progress."

Cycle Classification.

The thirteenth annual report of the public schools of Portland, Oreg., contains a description of the unusual, but interesting method of classifying the pupils in the elementary schools of that city prescribed over by Supt. Frank Rigler.

The school year is divided into two terms of five months each, regular promotion taking place semi-annually. Three of these terms constitute a "cycle."

The elementary course of study is divided into fifty-four parts. Classes are permitted to progress at whatever rate is found suitable to their powers, but the two standard rates are three parts per term for "second" divisions and four parts per term for "first" divisions. The normal class interval at the beginning of a cycle is three parts of the course of study, being measured not in time but in work.

At the beginning of every cycle pupils who have together reached the same point in the course are separated into a first and a second division. At the end of a cycle the second division will have advanced nine parts of the course; the first division will have advanced twelve parts and will have overtaken the second division next above. These two divisions are then united and again divided. In the re-division some of the pupils who did first division work during the preceding cycle are put into a second division, and some who did second division work are put into a first division.

While the normal cycle is a period of three terms, and while most of the overtaking and re-dividing is done at the ends of these cycles, nevertheless in large schools, where the interval between some of the classes is only two parts of the course, the second division is overtaken in two terms. On the other hand, in smaller schools the class interval is sometimes four parts of the course, and the cycle is extended to four terms.

At the close of every term, and occasionally during the term, there is some re-dividing to be done. In every school-room there are two divisions progressing at different rates. In the exigencies of rooming it is sometimes necessary to make up a "division" by taking the stronger members of a first division and classing them with the weaker ones of a second division who are one or one and one-half parts in advance of them. In such cases the division commences its work at the point already reached by its stronger members. The interval of parts can thus be passed over rapidly, being review for the weak ones and new work for very strong pupils.

An important feature of this system of classification is promotion by subjects instead of by "averages." A pupil may

do first division work in one subject and second division work in another. Sometimes he will recite part of his work in one room and part in another, but no inconvenience need result from this. In fact, it is an advantage in rooming, as his headquarters can be made in the least crowded of the two rooms.

Indiana Items.

The department of public instruction is determined to have the schools of Indiana make a good showing at the St. Louis exposition. A list of suggestions has been prepared and sent thru the state, including one to the effect that the counties should have exhibits from the rural schools, in order to select the best work.

County Supt. G. M. Wilson is responsible for the following resolution: That the minimum wage law of Indiana be changed by inserting two and one-half cents, two and three-fourths cents, and three cents, instead of two and one-fourth cents, two and one-half cents, and two and three-fourths cents, respectively, the change being made in favor of such teachers only as have had four years of high school work and one year of normal training.

Cost of Hand Training.

In a recent address, Capt. C. E. Vawter, of the Miller Manual Labor school at Richmond, Va., gave some pertinent figures as regards the cost of hand training.

"The cost of the kindergarten," he said, "is the teacher who can teach four or five classes per day. The equipment in the kindergarten need not exceed ten cents per pupil a year.

The manual training in the four lower grades should be taught in the regular school-room by the regular teacher at an average cost not exceeding one dollar per pupil a year, even if the equipment lasts only one year. This should include clay modeling, paper construction, cardboard work, drawing, designing, whittling, sewing, weaving, basketry, and water-color work.

"The cost for thirty pupils can be formulated as follows:

Subject.	Equipment.	Material.	Total.
Construction in Paper	\$8.70	\$8.00	\$16.70
Construction in Pasteboard	13.65	2.00	15.65
Clay Work	1.80	1.80	3.60
Basketry and Weaving	3.00	4.20	7.20
School of Whittling	90.00	6.00	96.00
Bench work	330.80	37.40	368.20

Exercises might be carried on in the fifth grade in some of the above, and have it include the designing and making of models.

The regular teacher can do all this work in the lower grades. The higher grades will include the school of whittling and the bench work, and will require a special teacher, who can give instruction in either of the departments to 600 pupils, if one lesson of ninety minutes is given a week, and to 300, if two lessons of ninety minutes are given each week. This would cost per pupil \$0.66 for 300 pupils and \$1.33 per pupil for 600.

The regular teachers can teach all the drawing with an equipment costing on an average one dollar per pupil, and fifty cents per pupil a year for material. The equipment will last for several years, while the material is estimated for only one year.

Nebraska Notes.

Supt. E. C. Bishop has been appointed manager of the state spelling contest, by the executive committee of the state Teachers' Association. He was one of the first to favor the reform spelling movement.

Library day was celebrated thruout the schools of the state on Oct. 23. As a result of the work of the public library commission, a program was arranged and sent to all the schools. Robert Louis Stevenson was the author given special attention.

The state is to be congratulated on its normal school facilities. Almost 4,300 teachers attended summer normal courses. During the current school year \$43,000 will be expended at Peru in the construction of a new chapel and gymnasium. A new normal school is to be opened at Kearney in 1905.

Superintendent Barber, of Boone county, has been appointed supervisor of penmanship in the Omaha high school.

New England Items.

The Massachusetts Schoolmasters' Club held its first meeting of the year on Oct. 17. The following officers were elected: Pres., Paul H. Hanus; vice-presidents, Henry S. Pritchett, James W. MacDonald, and Maurice P. White; secretary and treasurer, Herbert L. Morse. Supt. Edwin P. Seaver, of Boston, reviewed the result of the session of the N. E. A. convention. Dr. A. E. Winship read a paper on "Wherein the Boston meeting differed from the other meetings of the N. E. A."

Dr. Fred W. Atkinson, ex-superintendent of education in the Philippines, was a guest of the club. He described the educational progress in the islands.

PROVIDENCE, R. I.—Mr. E. L. Wood, a graduate of Amherst college in 1884, has been chosen professor of Greek and Latin in the manual training high school in this city.

ORONO, Me.—A new department, that of forestry, has been established in the University of Maine, and it has been placed in charge of Prof. S. N. Spring. Professor Spring was graduated from Yale university in 1898, and later he took the degree of master of forestry. He has also been connected with the United States Bureau of Forestry and has made an extensive study of American forests.

The trustees of Dartmouth college have voted to make church attendance voluntary instead of compulsory as heretofore. College "chapel," as an academic institution is unaffected by this action.

Recent Deaths.

Dr. Cornelius Shepard, of Trenton, N. J., who was active in establishing the present school system of New Jersey, died on October 7. He was born in Bucks county, Pa., and was a graduate of the University of Pennsylvania.

Prof. Charles E. Greene, dean of the department of engineering at the University of Michigan, died at Ann Arbor on Oct. 16. Professor Greene was famous the world over as an engineer. It is said that his book on determining the strains in bridge building revolutionized that business. The volume is used as a text-book by most universities in this country and in Europe.

William Henry Harrison Dunn, principal of P. S. No. 13, at Williamsbridge, N. Y., for thirty years, died on October 12. He leaves a widow and two children.

The editor of a New York medical journal says: Antikamnia tablets have been used with very favorable results in headache, neuralgia, influenza, and various nerve disorders. No family should be without a few five-grain tablets of this wonderful pain reliever. Two tablets for an adult is the proper dose. They can be obtained in any quantity from your family drug store.

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Kellogg's Little Primary Pieces



ABOUT 100 recitations for use with children of from 5 to 8 years of age. All are simple, bright, and pretty. They range from 4 to 16 lines in length and relate to matters of interest to little folks. The book contains some half dozen little exercises, each to be given by several children, but none have more than 8 lines for any child to learn. The collection is designed to meet the needs of teachers and mothers who complain that poems in most recitation books are too difficult for little folks. Illus. 25c.

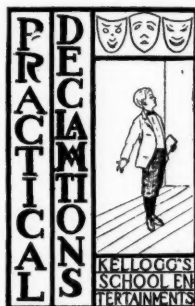
Kellogg's Nature Recitations

THE study of nature has come into our schools to stay. Here is a fine collection of pieces about nature, flowers, birds, animals, and seasons which is sure to be popular. Three departments: *The Flower World*, taking up all the common field and garden flowers, a poem about each; *Animals, Birds, & Insects*, original poems, and selections from Bryant, Shelley, Wordsworth, etc.; *Seasons & Months*, a charming collection. 25c.



Kellogg's Practical Declamations

MANY teachers fail by giving long speeches to be memorized or those not comprehended by the ordinary pupil. This book avoids both these errors. Every one of these exercises has been tested. Every one is good, and there are good lessons in many of them. There are about 100 short prose declamations in all on such subjects as "Success in Life," "Real Power," "Eloquence," "The Boys Know Something," "Things to Remember," "Fun." A splendid book for boys. 25c.



Kellogg's Practical Recitations

THIS selection will be understood by the ordinary pupil; he and she will comprehend what they recite. The practical nature of each piece will be noted. Many of the recitations are taken from the works of famous poets, some are original, and all have real literary merit. The book will be found an education in good taste and the large number of selections will prove an almost inexhaustible supply of material for Friday afternoons and exhibition days. 25c.



Kellogg's The Wonderful Doctor and Troubles Everywhere

THE first is a dialog for boys. The doctor is a fluent speaker and pretends to cause a short leg to become longer, the hair to grow, etc. The mustache keeps growing and won't stop, and this brings on an exciting finale. "Troubles Everywhere" is a humorous dialog for one girl and a number of boys. A traveler wishes to buy a farm and meets with numerous difficulties. 15c.

Kellogg's Practical Dialogs

THESE dialogs are about the real affairs of life; they are pictures of life; they are short; they are natural; they will be popular; every one is a gem. A number are arranged for several pupils; some are for 2 only; some for 3, and others for different numbers. They will be found excellent for general school use. 25c.



Kellogg's Months of the Year

SPECIALLY for December and January, but good for all the year. The Old Year goes out (old man) and new year comes in (little boy); then come a song and acrostics by thirteen pupils in the words "A Happy New Year." The months come in simple costumes, each with verse, followed by the lesson of the months by five pupils. 15c.

Kellogg's New Patriotic Exercise

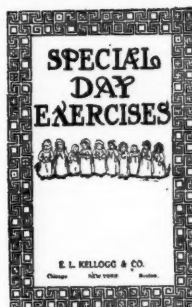
FOR closing school, Fourth of July, Washington's Birthday, or any patriotic occasion. Pupils discuss briefly causes of the revolution, with recitations and songs, and end with singing Columbia, Gem of the Ocean, using small flags. The history class will greatly enjoy this and it will help them to remember. No scenery necessary. 15c.

Kellogg's Special Day Exercises

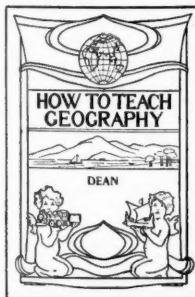
SPECIAL days on young memories. There are 3 Washington's Birthday Exercises, 2 Shakespeare, one each for Bryant, Whittier, Michael Angelo, Grant, Thos. Campbell, Longfellow, O. W. Holmes, E. B. Browning, R. W. Emerson and Mrs. Sigourney. 25c.

Kellogg's Primary Speaker

EVERY primary teacher will be glad to see this charming collection. It is not easy to find appropriate pieces for young children. We think we have here much the best book yet published. The selections range in length from four lines for the little tots to simple rhymes of four or five stanzas for children in the upper primary grades. 25c.



How to Teach Geography



A NEW help in Geography—one that will inspire and arouse thought. This book presents facts in the most interesting manner and gives the teacher the material for his work. Price, 25c.

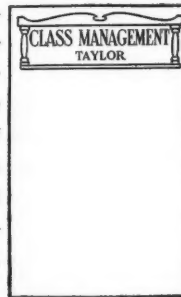
BLACKBOARD DESIGNS



Kellogg's Blackboard Designs FOR Blackboard Reproduction. Price, 50c.

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THIS is a practical book for the class teacher who is looking for help. The value of every principle and device suggested having been demonstrated. Price, 80c.



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Literary Notes.

It seems remarkable in view of the dramatic interest and importance of steamboat traffic on the Mississippi that George W. Ogden has been almost the only writer since Mark Twain to see its literary opportunities. It will surprise many readers to learn that the steamboat traffic of the Mississippi and its tributaries employed 4,000 boats in 1850. Mr. Ogden's forthcoming book "Tennessee Todd," which is to be published by Messrs. A. S. Barnes & Company, refers to a still more exciting period—the time of the struggle for existence between the steamboat traffic and the railroads.

Appleton's *New Spanish and English Dictionary*, edited by Arturo Cuyas, and published as a successor to Velazquez's abridged, is a most useful book. The following points are particularly worthy of note. It contains thousands of modern and technical words. Obsolete words and unusual provincialisms have been omitted. The irregular modes of Spanish verbs are given immediately after each infinitive. The Spanish pronunciation is shown by a simple key at the foot of each page. Equivalent words are given in stead of definitions. Technical terms and the professions to which they belong are indicated by abbreviations in parenthesis.

The small but clear and easily legible type selected has made it possible to crowd a great deal of matter into a very handy volume.

Ginn & Company have published "A Latin Grammar," by Prof. William Gardiner Hale, head of the Latin department of the University of Chicago, and Prof. Carl Darling Buck, of the department of Sanskrit and Indo-European comparative philology, at the same institution. This book presents a number of original features that are certain to have a marked influence upon the teaching of Latin in our schools. The field covered by the book is the syntax actually found in high school Latin, with the addition of a small number of constructions which were necessary for a general skeleton of the treatment. Questions of pronunciation, hidden quantity and orthography have received careful and independent study, and thus constitute a departure from the usual practice in such matters. It is hoped that the arrangement and form of exposition, together with the division of case uses and mood uses into families, and the accompanying synopses, will lead the student to conceive of Latin syntax as a living and organic whole. In its mechanical execution the book is admirably adapted for practical use.

In his *Life of Gladstone*, published recently by The Macmillan Company, Mr. Morley has taken the best from the huge mass of Gladstone correspondence and has woven it into his narrative. The author's greatest achievement has been his revelation of Gladstone the man. In portraying the traits, qualities, habits, and modes of work and of thought of that many-sided personality, he has made him real and alive to his readers. In particular one admires the success with which Mr. Morley shows the tremendous force that was behind everything Gladstone performed or undertook. Gladstone's deeds, speeches, writings, letters, reflections, and studies, the influences which acted on him and those which he exerted upon others—these and a hundred other matters are wrought into this biography.

Allen and Greenough's *New Latin Grammar*, carefully revised and edited by Profs. J. B. Greenough, G. L. Kittredge, and A. A. Howard, of Harvard University, and Benjamin L. D'Ooge, of Michigan State Normal college, has been published by Ginn & Company. This

famous Latin grammar first appeared as an epoch-making book in 1872, and is now published in an entirely new form. The arrangement of the book has been changed thruout, and every new contribution to classical scholarship has been examined and incorporated, when approved by the editors. The new book retains the scope and characteristic features that have given it a world-wide distinction. The revision was begun by Professor Greenough himself and was completed after his death by a circle of scholars who had long been most intimately associated with him. The paragraphs have been renumbered thruout and the typography has been completely changed. A new scheme of type display unquestionably marks the highest typographical achievement in books of this character.

Houghton, Mifflin & Company announce the appearance of "Long Will," a romance of the peasants' revolt in England in the fourteenth century, by Florence Converse. Mr. A. Garth Jones, the eminent English artist, has furnished some extremely successful illustrations which lend attraction to the volume.

The Baker & Taylor Company's catalog of holiday and miscellaneous and bulletin of the latest and best selling books is a valuable list of what is before the public at present.

Benj. H. Sanborn & Company have recently published "Inductive Lessons in Biology," by Miss Lewanna Wilkins, instructor in biology in the Washington, D.C., High school.

A complete list of the publications of Doubleday, Page & Company has recently appeared, which fully describes the interesting and valuable books of that house.

The steady increase in the sales of Walt McDougall's "The Rambollicus Book," published by George W. Jacobs & Co., of Philadelphia, has entirely exhausted the large first edition, and a second edition is now on the press. The book is unique in character and has been compared with "Alice in Wonderland." The stories comprised in the volume are ingenious and striking. It has been called "The child's book of the year," but, while intended for children, it has aroused the interest of the "grown-ups."

Longmans, Green & Co. have published the fourth edition, revised, and extended, of George G. Chisholm's "Handbook of Commercial Geography." Many pages have been rewritten and much new data has been added.

Cyrus Lauro Hooper, editor of the "Twentieth Century Shakespeare," has written a book of the type of Kenneth Grahame's classics. It will be published by John Lane. Mr. Hooper shows in the course of his narrative the process of evolution of the mind of youth with its strange imaginings and the visions which furnish it with entertaining mysteries.

Aching Joints

In the fingers, toes, arms, and other parts of the body, are joints that are inflamed and swollen by rheumatism—that acid condition of the blood which affects the muscles also.

Sufferers dread to move, especially after sitting or lying long, and their condition is commonly worse in wet weather.

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READERS will confer a favor by mentioning THE SCHOOL JOURNAL when communicating with advertisers.

The *Chautauquan* for October contains a number of valuable articles. Among them are "Racial Composition of the American people," by John R. Commons, telling of the colonial race elements, "American Sculptors and Their Art," by N. Hudson Moore, and "What America Spends in Advertising."

Of particular interest to educational people are articles on "The Training of the Citizen," by Charles Zueblin, and "Public School Art Societies," by Rho Fisk Zueblin. The department of survey of civic betterment contains a number of subjects of interest to teachers.

Governor Murphy, of New Jersey, has called a special session of the legislature for October 15. The purpose will be to pass an act to take the place of the general school law of the state, that was declared unconstitutional by the court of errors and appeals.

The governor is convinced that the immediate passage of a new school law is necessary to straighten out the chaotic condition which now exists on account of there being no workable school law.

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